Part Two
Section II

Division of Maternal Child Health
and
Children's Special Health Care Services
of the
Indiana State Department of Health

Five Year Needs Assessment
For
FY 2011 to 2015

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Five Year Needs Assessment for FY 2011 to 2015

Indiana's Five Year Needs Assessment for FY 2011 to FY 2015 was a collaborative effort with Title V staff, professional, parent, and community partners. Other programs within ISDH and state government that work with MCH and CSHCN populations provided data and programmatic input. This needs assessment will provide guidance to Indiana's MCH and CSHCN programs for the next five years.

B.1. Process for Conducting State Needs Assessment

This section presents the process by which the Maternal and Child Health (MCH) and Children's Special Healthcare Services (CSHCS) Divisions of the Indiana State Department of Health (ISDH) conducted the comprehensive five year needs assessment.

Goals and Vision

The goals of the Indiana Title V Needs Assessment process were to (1) identify health needs for the maternal, infant, child, adolescent and children with special healthcare needs (CSHCN) populations in Indiana; (2) improve working relationships with collaborative partners; and (3) provide a roadmap for improving health outcomes for the same populations. The framework was modeled after the steps recommended by the Maternal Child Health Bureau Guidance. Staff **engaged stakeholders** by sending out an early questionnaire seeking areas of concern from partners. Then staff also **solicited input from stakeholders** in the prioritization of needs process. Title V staff **assessed needs** of the Maternal and Child Health (MCH) and CSHCN population groups using Title V indicators, performance measures and other quantitative and qualitative data described in the Methodology section.

The next step in the process was to **examine strengths and capacity**. Staff examined the State's capacity to engage in various activities, including collecting annual performance data and providing services by each pyramid level. Staff analyzed current resources including state health department staff, collaborative partners, Title V Block Grant funding, state funding and funding from other resources including HRSA and CDC project specific grants. Staff reviewed what current activities and services were being provided by state and local entities by pyramid levels to address current and proposed national and state performance measures. This helped staff understand where there were adequate services and where gaps existed.

To **select priorities,** the MCH Director, Children with Special HealthCare Services (CSHCS) Director, Medical Director, Title V epidemiologist and other senior staff met to examine the needs identified from data and public input. They matched needs to desired outcomes, required state and federal mandates, Healthy People 2020 draft objectives, and levels of existing capacity. Based on the results of this work, nine (9) state priorities and one developmental priority were identified.

To **set performance objectives,** the priority areas were divided among staff subject matter experts. They each called together a team of partners and collaborators to define state performance measures and five (5) year objectives and activities. These activities resulted in an

Action Plan that has been used as part of this Title V grant application and part of the state strategic health plan. The team also identified what data would be used **to monitor progress** on the performance measures, who would be responsible for reviewing the data, and how frequently the data would be monitored.

The MCH Director, CSHCS Director, Medical Director, Director of Life Course Systems and Grants Coordinator met and evaluated current resources to decide if **additional resources or legislative authority** would be needed for the new state performance measures. This group assessed the activities, current budgets, political priorities, and existing partnerships to develop a budget that directs available resources toward activities identified in the Action Plan. During the needs assessment process, collaborators, **stakeholders and parents of children with special healthcare needs were involved** in setting priorities, developing performance measures and setting yearly objectives. A summary of the Needs Assessment, 2011 Grant Application and 2009 Report was also send to approximately 250 stakeholders and parents of children with special healthcare needs for comment and input. A summary of the responses to the summary can be found in Section 1.E of the Grant Application.

Leadership

The Needs Assessment Leadership Committee initially consisted of the MCH Director, CSHCS Director, Medical Director, Data Analysis Section Director and Epidemiologist. This group outlined the Needs Assessment process and was responsible for gathering the initial data. This group also designed the process to get public input and to involve program leaders and collaborating programs to develop performance measures, yearly objectives and activities. The Life Course Systems Director took on the responsibility of collating the various parts of the needs assessment into a cohesive document.

Methodology

The methodology used for the Five-Year Needs Assessment was designed to answer the questions (1) what health services are essential, (2) what services are available, and (3) what services are missing. This assessment targeted all levels of the MCH Pyramid including direct healthcare services, enabling services, population based services, and infrastructure building. The resulting 10 priority State Performance Measures are the result of the identification of the missing services. Title V staff relied heavily not only on quantitative data, but also on qualitative data provided by numerous partners, collaborators, families, individuals and subject matter experts. This section describes the specific methodology used to conduct the needs assessment

The first step in conducting the Five-Year Needs Assessment entailed identifying public health issues that adversely affect the health and well-being of mothers, children and children with special healthcare needs. Under the guidance of MCH's epidemiologist, Title V staff sent pre-surveys to Indiana residents, families of children with special needs, healthcare workers, public health organizations and partnering organizations for the purpose of identifying the most important public health issues based on their experiences. MCH/CSHCS received 46 pre-survey responses containing over 50 priority public health issues.

As a next step, MCH/CSHCN subject matter experts reviewed, analyzed, and prioritized the survey results. The subject matter experts used a matrix tool to help them score the 50 public health issues. Using a weighting process, the matrix scoring was based on criteria including the magnitude of the issue; trends; severity; preventability; public health goals; MCH/CSHCS's capacity to improve these issues; and, acceptability in terms of what the public and lawmakers are willing to address. Of note is that the subject matter experts gave the most weight to the magnitude of the issue and the least weight to acceptability.

Based on the outcome of the matrix process, MCH/CSHCS selected 36 of the 50 public health issues to use in a questionnaire. The "Q-Sort" was e-mailed and distributed at meetings with collaborators and partners handed out at collaborative meetings.

Over 200 people and organizations responded to the Q-Sort. The results were entered into an excel spreadsheet and then imported into the statistical analysis package SAS (9.1). Once in SAS, the epidemiologist and data analysts were able to determine which health topics scored the highest importance. With input from the subject matter experts and the scoring in SAS, the MCH/CSHCN Medical Director, the MCH and CSHCS Directors, and the Assistant Commissioner of Health and Human Services selected the ten (10) State priorities for the nest Five-Year time frame (2011 – 2016). In making their decisions, they also looked at scoring based on factors such as geographic location and comparing responses between metropolitan and non-metropolitan areas. However, the results of these comparisons did not produce many significantly statistical results.

Methods for Assessing Three MCH Populations

This section summarizes the quantitative and qualitative methods used to assess the strengths and needs related to the health of pregnant women, mothers, infants, children, and CSHCN in Indiana. Quantitative and qualitative data were analyzed to gain a comprehensive statewide, community and client-centered perspective about the health needs of these population groups.

Quantitative data were assembled via several ongoing and periodic surveillance systems (See "Data Sources" section) operated by the ISDH and outside partners. The data collected allowed for the accurate description of these populations, including identifying their general demographics, health-related disparities, and areas of strength that could be maximized to attain desired outcomes. Moreover, these data were used to describe, by geographic region, the capacity of the healthcare system to offer access to appropriate and timely services.

The qualitative data were collected through program-specific focus groups, input from the public and multiple stakeholders, and periodic surveys conducted in targeted populations. For example, we utilized qualitative, as well as quantitative, data collected by the CSHCS Program via surveys to parents within their network, input from the Indiana Community Integrated Systems of Services advisory committee, and the National Survey of Children with Special Healthcare Needs to effectively describe the needs of this specific population.

Methods for Assessing State Capacity

Title V staff, in concert with partners, families, and the community, use various method to assess State capacity for all four levels of the MCH pyramid - Direct Healthcare Services, Enabling Services, Population-Based Services, and Infrastructure-Building Services. First and foremost, Title V staff monitor surveillance data as available to develop an understanding of the health needs of the MCH populations. Staff also work with collaborators, partners and families to add qualitative data to the needs assessment to round out the true picture of the health and well-being of the MCH populations. Based on this information, Title V staff initiate an assessment of State Capacity.

For direct healthcare services, Title V staff pair the need of the MCH populations to existing healthcare facilities, healthcare professionals, or other services considered ordinary one-on-one medical care. Sources for this information include but are not limited to other divisions in the ISDH and collaborating partners such as the American College of Obstetricians and Gynecologists Indiana Chapter ACOG. MCH, the Indiana Perinatal Network (IPN) and ACOG work closely to ensure that high risk mothers and babies are treated in the appropriate levels of care. Title V staff also work use qualitative data from families, the community, and partners to further assess the State's capacity for direct healthcare services.

For enabling services, Title V staff works with a number of partnering agencies and organizations to identify services that allow or provide access to the basic healthcare services. These services include such things as transportation, translation services, WIC, case management, and other services. Without these enabling services, many CSHCN families and low income, isolated and disadvantaged populations would not have access. Title V staff utilizes both quantitative and qualitative data to assess capacity in this area. For example, there is a large Burmese refugee population in Indiana. We are acutely aware of the need for translation services for this population as well as for the increasing Hispanic population. The Indiana Family Helpline maintains inventories of many enabling services and this information is available to anyone calling the Helpline.

For population based services that are directed to the entire MCH population, Title V staff assesses capacity based on the preventive interventions and personal health services that are necessary for disease prevention and health promotion on a statewide basis. Title V evaluates the continuing and growing need for these services on a routine and reoccurring basis. For example, incidence of SIDS in the black population demonstrates that there is a need for additional capacity to address this issue. Likewise, the fact that injuries are the leading cause of death for children and adolescents also points to the need for additional capacity in this population based service.

For infrastructure building services, Title V staff strives to identify areas where increased capacity in infrastructure services will help improve the health status of the MCH populations as well as provide support for the development and maintenance of comprehensive health systems. Once these idea are identified, Title V staff work collaborative to build the needed services. A good example of identifying the need to build capacity in infrastructure services is the State's policy on presumptive Medicaid eligibility. Due to a number of factors, the State was taking a

very long time to approve Medicaid eligibility. With MCH support, the State initiated a presumptive Medicaid eligibility program that allowed pregnant women to access Medicaid services quickly. The following is an excerpt from a letter we received that was in response to the Executive Summary Five Year Needs Assessment and Grant Application.

I cannot begin to tell you how well the presumptive eligibility program is working up here. Even the local Medicaid office is referring to us telling patients "they can get you on faster than we can!"

Finally, for these past two years, ISDH has initiated geographic information system (GIS) maps to help determine local capacity and statewide capacity. These maps have assisted in visually presenting areas of need and capacity to meet those needs. In the coming years, Title V staff will be using this technology to further our understanding of capacity and need.

Data Sources

Many data sources were used to produce the comprehensive five year needs assessment. Data were obtained from our partners and collaborators including ISDH, Office of Medicaid Policy and Planning (OMPP), the Indiana Department of Education (DOE), Indiana Family and Social Services Administration (FSSA), Department of Child Services (DCS), Centers for Disease Control and Prevention (CDC), National Vital Statistics Reports, Indiana Prevention Resource Center, and Healthy People 2010 Objectives. Additionally, specific partner and collaborator groups, publications, and online resources material were used to fill gaps in data.

Medicaid data were used to analyze information about pregnant women, infants, and children on that program. One limitation to this data is that Medicaid only covers about half the sample of the Indiana population. Another limitation to this data is that the Medicaid population is a skewed sample of population. Women Infants and Children (WIC), Pregnancy Nutrition Surveillance System and the March of Dimes data were used for perinatal risk and outcomes data. The Indiana Birth Defects and Problems Registry (IBDPR) was utilized for newborn screening and hearing loss data. The Indiana Integrated Data System (IDS) was utilized for newborn screening and hearing loss data. The Indiana Asthma Coalition data were used in conjunction with ISDH data to analyze asthma in Indiana.

To analyze children's and adolescents' health, we used data from the National Immunization Survey, the Indiana Youth Institute, Early and Periodic Screening, Diagnosis and Treatment (EPSTD) program, the American Academy of Pediatrics, Behavioral Risk Factor Surveillance System (BRFSS), Indiana Youth Risk Behavior Survey (YRBS), and the Pediatric Nutrition Surveillance System (PNSS). The National Survey of Children's Health along with the Association of State and Territorial Dental Directors (ASTDD) data were used to analyze children's oral health.

The National Survey of Children with Special Healthcare Needs (NSCSHCN) and the Indiana Community Integrated Systems of Services (IN CISS) grant application data were used to analyze children and youth with special healthcare needs. One limitation of these data are that many of the questions changed between the 2001 and the 2005-06 NSCSHCN survey. This

made some areas non-comparable, even though they may have seemed comparable without careful examination of the questions.

Linkages between Assessment, Capacity, and Priorities

Title V staff used quantitative and qualitative data to assess the needs of pregnant women, infants, children, adolescents, women of childbearing age, and children and youth with special healthcare needs. To meet these needs, staff looked at existing capacity including services, partnerships, collaborations, health status and health outcome indicators, and the information in Section B.3 of the Five Year Needs Assessment. All of this information, as well as information from subject matter experts, resulted in the identification of 50 health issues. Through the process described earlier in the Section, the 50 health issues were reduced to 10 top State priorities. These priorities became the 10 State Performance Goals.

Dissemination

Title V staff are committed to not only sharing the Five Year Needs Assessment, but also to addressing comments, suggestions, and guidance from stakeholders and the public. This input serves to strengthen the allocation of resources and the impact of programs and interventions. We view the Title V Needs Assessment as a dynamic document and consider input on an ongoing basis.

To disseminate the document, Title V staff employs a variety of documents in a variety of formats to reach as many audiences as possible. In terms of documents, staff maintain the Five Year Needs Assessment, the Title V Grant Application, the State Overview, the Annual Report/Annual Plan, the Executive Summary and all forms in hard copy and electronically. These documents are then shared and disseminated as described in the following manners.

- *Hard Copy* – MCH and CSHCS have hard copies of the Five Year Needs Assessment, the Title V Grant Application, the State Overview, the Annual Report/Annual Plan, the Executive Summary and all forms. These documents are available to anyone who would like a copy or would like to come to the office to read a document in the Title V offices. Title V staff are available to review the documents with anyone who requests it. Also, staff will take a copy of the completed Five Year Needs Assessment, Application and/or Executive Summary to selected partner and community meetings for additional input throughout the next five years. Title V staff see great value in getting qualitative data from the community, partners, and collaborators.

- *Electronic Copies* - MCH and CSHCS maintain electronic copies of the Five Year Needs Assessment, the Title V Grant Application, the State Overview, the Annual Report/Annual Plan, the Executive Summary and all forms. The Executive Summary of the Five Year Needs Assessment and Grant Application was disseminated to over 250 partners, collaborators, individuals and families. All comments were considered. Section I.E, Public Input, contains a summary of the comments. The Executive Summary, Five Year Needs Assessment, and the Title V Grant Application will be available on MHC's and website with a link from the CSHCS' website.

Strengths and Weaknesses of Process

The strengths of the current methods of data collection analysis for the five year needs assessment are that they provide the most accurate, inclusive data available to us with more than twice the public input of the last five-year needs assessment, as well as the perspective of multiple sources. Another strength is the epidemiologic analysis on linked birth and death certificates to further analyze infant mortality rather than just review vital statistics. Other epidemiologic analysis was conducted on preterm birth, induction of pregnancy and cesarean births using birth records to show trends in the time and day of the week of births in Indiana. Long term data were analyzed to report on SIDS/SUIDS and short interpregnancy intervals to show trends and outcomes. The Indiana State Department of Health was able to work with Medicaid to share data to give an accurate picture of that population.

The weaknesses are the lack of an integrated statewide collection and analysis system for such data and reliance on convenience samples as opposed to complete state-representative samples. As discussed earlier, the pre-survey and Q-Sort were distributed to mostly a more involved and knowledgeable sample since most of these organizations and groups were already linked to public health or the ISDH through other efforts. Although the response has been very enthusiastic and is generally in keeping with the responses of past five year needs assessment5YNA, the response group is still smaller than desired.

B.2. Needs Assessment Partnership Building and Collaboration

Over the past five years, MCH and CSHCS have continued to work diligently to collaborate with, enhance, and build strong partnerships with other programs that work with the MCH populations. These partners include other divisions and programs within ISDH, HRSA, CDC, other governmental agencies, state and local public and private organizations, schools of higher education, and families of children with special needs. For example, we received a comment on the Five Year Needs Assessment from the manager of a health center in northern Indiana. The manager stated,

"I have reviewed the Title V needs assessment and agree with the priority health issues and needs chosen by the state for the Title V grant. We are pleased to be a partner with Title V and look forward to working with the state to accomplish the stated goals in the assessment. Thank you."

Partnership building and collaboration will continue to be a primary focus of MCH and CSHCS in the next five years, especially as MCH moves toward a Life Course Health Systems approach to positively impact the health and well-being of women and children.

Currently, MCH (including Genomics and Newborn Screening) and CSHCS staff consultants utilize a number of methods to collaborate, enhance and build relationships. For example, staff consultants identify and collaborate with evidence-based programs that may be eligible for funding; participate on our partners' task forces and committees; maintain communication with key individuals in partnering agencies and in the community at large; build collaborations where none exists; and attend community meetings that promote the health of women and children.

Additionally, staff consultants technically assist our MCH funded clinics and are in close communication with program directors.

Partnerships with State and Local MCH Programs

All staff and consultants at MCH and CSHCS collaborate with state and local maternal and child health programs in efforts to promote and improve maternal and child health. These partnerships help to ensure that women of child bearing age, mothers, and children are afforded the best comprehensive and continuous care possible. Program collaboration occurs not only between programs at the state level but also between state and local entities. One example is the Prenatal Substance Use Prevention Program (PSUPP) which partners not only with Prenatal Care Coordination (PNCC) but also with MCH clinics to provide referrals and counseling on alcohol, tobacco, and other drug use. MCH also collaborates with the Office of Primary Care (Community Health Centers/Rural Health Centers) to provide services and funding for clinics serving the MCH population. Early Hearing Detection and Intervention (EHDI) is a further example of collaboration. The EHDI Program provides coordination for newborn hearing screening at 103 birth facilities around the state and works with the Part C Early Intervention system to ensure that children identified with hearing loss receive necessary services. In addition, MCH and CSHCS provide grants, using Title V funds, to providers in underserved areas. The strength of these partnerships is the statewide access and referral network that addresses the issues of women of child bearing age, mothers, children and children with special health needs. (For a detailed listing of partnerships, collaborative involvement and strengths of these relationships please see Table A at the end of this section.)

Partnerships with Other HRSA Programs

Title V staff actively coordinate with HRSA programs. MCH works with the ISDH Office of Primary Care and the Indiana Primary Healthcare Association to assure vulnerable populations have access to healthcare. MCH works with the Office of Women's Health (OWH) in support of activities to prevent dating and sexual violence among adolescents and young people. CSHCS partners with the About Special Kids (ASK) program to provide resources, referrals and support for a parent-to parent exchange mechanism. MCH also collaborates with two Healthy Start programs by providing a program for certification of community health workers and participating in initiatives, such as decreasing prenatal disparities. MCH has developed a unique partnership with Indiana's Title X grantee. Funds for family planning from Title X, Title XX and TANF are all distributed through the Title X agency, the Indiana Family Health Council. MCH/CSHCS also provides technical assistance to HRSA and MCH/CSHCS funded programs as needed. (For a more complete listing of MCH/CSHCS collaborative efforts, please Table B at the end of this section.)

Partnerships with Other ISDH Programs

A priority of ISDH and the Health and Human Services Commission is to establish meaningful collaborations and working relationships within the organization. The MCH and CSHCN Divisions work effectively with programs within their own Commission and as well as with other ISDH Commissions. Internal partners include the Division of Nutrition and Physical

Activity (DNPA), Women, Infants, and Children (WIC), and the Cancer Consortium combining efforts to address overweight and obesity as well as breastfeeding. MCH also works with the Asthma Program in implementation of the State Asthma Plan that includes a media awareness campaign and training program for child care and healthcare providers.

The CSHCS Division partners with the Public Health and Preparedness Commission, to provide information to the public and other organizations concerning the special needs of children with disabilities. MCH and CSHCS also collaborate with Lead and Healthy Homes in this commission to disseminate information on lead poisoning prevention.

Title V staff also work closely with Vital Records and the Epidemiology Resource Center (ERC) in the Operational Services Commission. Several initiatives involve MCH and CSHCS. These efforts include the integration of data in support of the Indiana Birth Defects and Problems Registry and the supply of information in support initiatives such as low/very low birth weight and infant mortality prevention programs. (For a more detailed list of partnerships and internal collaborative efforts please see Table C at the end of this section.)

Partnerships with Other Governmental Agencies

MCH and CSHCS have numerous partnerships with other governmental agencies, including Family & Social Services Administration (FSSA) and Department of Education (DOE) and the Department of Child Services (DCS). Examples of collaboration with FSSA include the interaction of the Early Hearing Detection and Intervention (EHDI) Program with FSSA's First Steps Part C Early Intervention program, as well as the combined CSHCS-First Steps enrollment process. The Office of Medicaid Planning & Policy (OMPP) in FSSA has been a key partner in the development of the "State of the Hoosier Child" report and in creation of a new Prenatal Risking tool, sensitive to psychosocial and nutritional issues. The Department of Education is an integral partner in initiatives ranging from the Early Childhood Comprehensive Systems program to the Youth Risk Behavior Survey (YRBS). MCH and CSHCS have collaborated with DCS on its statewide Healthy Families Indiana program by supporting training. Other governmental agencies include local health departments which provide MCH infrastructure at the local level. (For a more extensive listing of MCH/CSHCS partnerships with other governmental agencies, please see Table D at the end of this section.)

Partnerships with Other State and Local and Private Organizations

MCH's and CSHCS's partnerships and collaborations extend deep into Indiana. Some examples of local and private partnerships include Indiana Perinatal Network, Indiana University School of Medicine, Indiana University School of Dentistry, and local school systems. For example, a nurse working with children with special healthcare needs at Riley Hospital for Children wrote in support of the Title V Grant Application and the Title V Five Year Needs Assessment. She stated,

"Thank you for the opportunity to review the Title V Grant Application and the Title V Five Year Needs Assessment. I have read and agree with the goals outlined to meet the state's priority health issues and needs. I found the ten goals that have been identified as needed areas for

improvement in Indiana to be appropriate and necessary. I believe the work plan outlined with each of these goals will allow Indiana to attain the projected outcomes. I am looking forward to seeing these goals achieved and am willing to help in any way I can."

Indiana Prenatal Network (IPN) is Title V's infrastructure building arm for perinatal health. The partnership with IPN provides a mechanism for disseminating information to prenatal care providers, providing professional education, and advocating/monitoring legislation pertaining to women of childbearing age. Partnership with the Indiana University School of Medicine allows for funding of high-risk prenatal care, care for children with special needs, and genetic counseling. Partnership with the Indiana University School of Dentistry and their Seal Indiana program allows disadvantaged children to receive preventative interventions to help prevent tooth decay. School systems provide a means of bringing healthcare services to adolescents. Title V sponsors three school-based clinics that connect adolescents and their families with health resources, services and referrals. (For a more comprehensive listing of partnerships and collaborative efforts with private organizations, please see Table E at the end of this section.)

Stakeholder Involvement in Needs Process

MCH and CSHCS Divisions are strongly committed to including stakeholders in their ongoing programs and planning processes. For this five year needs assessment, MCH and CSHCS staff worked diligently to secure input from all stakeholders including families, public and private partners, governmental and other partnering agencies. Examples of these partnering agencies include the Indiana Perinatal Network (IPN), the Sunny Start Core Partners group (SSCP), Covering Kids and Families (CK&F), the Indiana Coalition for the Improvement of Adolescent Health (ICIAH), and About Special Kids (ASK). Additionally, the IN CISS Project employs two parent consultants who provide the parent perspective on improvement efforts in the area of organized community-based service systems.

As a first step in the needs assessment process, Title V staff distributed pre-surveys to the above partnerships, residents, parents, healthcare workers and public health organizations to identify the MCH public health needs they considered most important. MCH and CSHCS subject matter experts reviewed the results of the pre-survey for the purpose of narrowing the initial list that identified more than fifty (50) public health needs.

The results from this review were placed in a questionnaire with the goal of gathering further input from the general public. The resulting thirty-six (36) public health needs questionnaire was mailed to residents, organizations and groups throughout Indiana. Staff consultants also conducted in-person survey workshops with ISDH Divisions and existing partnership organizations. The survey was also added to the ISDH website where the public and all interested parties could access it electronically. MCH and CSHCN collected over two hundred (200) survey responses.

The survey responses were analyzed statistically, allowing for a ranking by perceived importance. From these rankings a list of the top-ranked eighteen (18) public health needs was created. This list was further reduced to the proposed ten (10) performance measures via additional input from staff consultants and parent representatives.

Needs Assessment Partnership Building and Collaboration Summary

Table 1: State and Local MCH Programs

Collaborating Agency	**Population Served**	**Stakeholder Involvement**	**Strengths**	**Weaknesses**
Breastfeeding Program	Pregnant Women Women (ages 14-44)	-Work with State Breastfeeding Coordinator and Indiana Breastfeeding Alliance to identify issues in communities -Promote establishment of local breastfeeding coalitions with special emphasis on African-American community	-Broad-based support across state -Long history of breastfeeding promotion and support -Good working relationships with partners	-Working to improve partnership with WIC
Children's Special Health Care Services (CSHCS)	Children (ages 0 – 21)	-Provide supplemental medical coverage to families of children with serious, chronic medical conditions -Provides funding for About Special Kids (ASK) - Core partner in Early Childhood Comprehensive Systems initiative (Lead on Community Integrated Systems of Services-CISS) -Promotes CSHCS services at exhibitions and health fairs	-Information source for families	

Early Hearing Detection and Intervention (EHDI)	Infants	-Monitor newborn hearing screening programs for babies at 103 birthing facilities to ensure that all babies are screened for hearing loss -Provide monitoring of children and surveillance of newborn hearing screening and follow-up through the State's web-based tracking system, the EHDI Alert Response System (EARS) -Communicate with medical homes of children with exceptional newborn hearing screening results and children identified with hearing loss. -Provide information on options for children with hearing disabilities (e.g. Guide by Your Side) -Key member of Early Hearing Detection and Intervention advisory committee -Participate on Indiana Deaf and Hard-of-Hearing task force	-High Quality Staff -Progressive Data management system -Good communication between hospitals, medical homes, audiologists, and EHDI -Strong partnership with family support/education agency, Indiana Hands & Voices, which provides parent contractors to EHDI for assistance with timely follow-up and parent support	

Indiana Family Help Line (IFHL)	All	Provides a statewide information and referral service for the public	Provides service referral for all programs	Need for more resources
Integrated Community Services	Children	Indiana Community Integrated Systems of Services (IN CISS) Project	Systems improvement for CYSHCN and their families	
Newborn Screening	Infants	-Provides screening for 45 inherited disorders -Monitors and maintains program to ensure newborns with abnormal and/or presumptive positive screens receive timely and appropriate follow-up services, genetic counseling and support	-Close collaboration with other MCH newborn programs	
Office of Primary Care (Community Health Centers, Rural Health Centers)	All	-Collaborate with MCH on clinic funding & data collection -Share media programs (e.g. preconception) -Provide services for MCH population -Provide referrals and physicals for Head Start programs -Some sites participate in Free Pregnancy Test program -Share Title X funding	-Partnership between grants allows service of low income population -Provide primary care services -Services Medicaid reimbursable -Operate on sliding scale fee	
Prenatal Care	Pregnant Women	-Provide outreach, case	-Growth of care	-Change in rules and

Coordination (PNCC)		management, referrals and education -Collaborate with Medicaid and Managed Care Organizations	coordination program -Good case management and sharing of data	administrative tools occur slowly
Prenatal Substance Use Prevention Program (PSUPP)	Pregnant Women	-Provide counseling and referrals for substance use -MCH clinics refer clients to PSUPP staff -Provide data collection and analysis, including quit rates	-Reaching women at opportune time to facilitate lifestyle changes -Collaborate with community groups with similar goals -Sole source of prenatal quit rate data	-Program is participation is voluntary -Limited treatment providers to refer women to -Decreasing funding -Sites only cover 26 counties
Indiana RESPECT (Indiana Reducing Early Sex and Pregnancy by Educating Children and Teens)	Adolescents (ages 10-19) Parents and guardians of adolescents	-Funding to support community-based programs to implement sexuality education and teen pregnancy prevention programs	-Ability to reach communities throughout state	-Limited funding to support grantees
SUNNY START (Early Childhood Comprehensive Systems)	Infants Children (ages 1 – 5)	-Provides mechanism for collaboration of partners across state -Updated state strategic plan for next three years	Strong commitment to early childhood development	

Table 2: MCH Collaboration with Other HRSA Programs

Collaborating Agency	Population Served	Stakeholder Involvement	Strengths	Weaknesses
About Special Kids (ASK)	Children &Youth with Special Health Care Needs	-Provide resources, referrals, and training -Provide mechanism for parent-to-parent exchange and support -Partner with CSHCS Family-to-family health Information Center	Parent-to-Parent Support -Healthcare Financing Information Center	
Center for Youth and Adults with Conditions of Childhood (CYACC)	Young Adults (12 - 22)	-Partners with CSHCS to assist in transition of youth to adult health care and care coordination	Resource for community services	
Division of HIV, STD, and Viral Hepatitis	Children (0 through 21) Adolescents Pregnant Women	-Joint funding of Hemophilia Program (MCH.CSHCS, Chronic Disease) -Assistance with updating content of Web site with STI rates among adolescents and young people and the location sites for STI testing -Client education on HIV testing	-Financial assistance. -Access to most recent data and location of STI testing sites Common focus	
Healthy Start (Northwest Indiana, Indianapolis)	Infants Children (ages 1 to 2) Mothers Pregnant women	-MCH provides certification of program community health workers.	-Common focus -Healthy Start resources	

		-Share resources -Healthy Start has a voice on state committees. -Collaborate on initiatives such as decreasing perinatal disparities, and interconception care.		
Office of Minority Health	Pregnant Women Women	-Participated in media campaigns (e.g. Healthy Baby Begins with You) -Collaborative state plans and performance objectives	-Provides access to minority community	-Limited funding
Office of Women's Health (OWH)	Adolescents Pregnant Women Women (ages 14 – 44)	-Partnership provides grant funding to support activities to prevent dating violence and sexual violence among adolescents and young people (ages 10 through 24) -Provided input and buy-in on disparity issues	-Ability to partner with new organizations throughout the state -Collaborative efforts added questions on violence to prenatal assessment and outcome forms used by Medicaid and Managed Care Organizations	- Limited grant funding to support collaboration

Table 3: MCH Collaboration with ISDH Programs

Collaborating Agency	**Population Served**	**Stakeholder Involvement**	**Strengths**	**Weaknesses**
Asthma Program (Chronic Disease Division)	Children Women	-Indiana Joint Asthma Coalition (InJAC) participation -Implementation of State Asthma Plan -Training of child care providers and health care providers -Media awareness campaign	-Inclusion of diverse groups of agencies and professionals -Emphasis on minorities, underserved women, and children in schools	-Difficulty in maintaining minority representation -Need more involvement with school staff
Cancer Consortium (Chronic Disease)	All	-Partner with Indiana Breastfeeding Alliance (IBFA) for inclusion of breastfeeding in state cancer plan	-Common goals	
Chronic Disease	Children (0 through 21) Adults	-Funding assistance with Sickle Cell Program		Close collaboration is not on-going
Division of Nutrition and Physical Activity	Children Adolescents Women (ages 14 -44) Breast Feeding Women	-Coordination of grant efforts for breastfeeding population, worksite lactation program begun, breastfeeding included in DNPA plan -Partner with Indiana Breastfeeding Alliance (IBFA) -Leader in Indiana Healthy Weight Initiative	-Close proximity for meetings, conference calls and sharing of information -More national focus on improving breastfeeding support	Need to improve collaboration between programs

		-Collaborated on YRBS for 2009 survey -Staff participation in Indiana Coalition to Improve Adolescent Health (ICIAH)		
Immunization	All	Provide information and resources to MCH, CSHCS, FSSA Bureau of Child Development Child Care	Similar population focus	
Lead Poisoning Prevention Advisory Committee	Children	State Lead Elimination Plan -Partners with MCH and CSHCS to provide information lead poisoning prevention	MCH clinics screen for lead poisoning.	
Preparedness	All	Partners with CSHCS to provide information to public and other organizations concerning special needs of children with disabilities		
Vital Records	All	-Provide death certificates -Provide information on natality: prematurity, morbidity, mortality	-Receive death certificate information in a timely manner	-All information contained in death record does not appear in Vital Records
Women, Infants, and Children (WIC)	Infants Children Pregnant Women	-Takes referrals from Indiana Family Help Line (IFHL) and MCH	-Provide Nutrition education and monitoring	-Limited collocation of services requiring separate visits for MCH

	Breast Feeding Women	programs -Provide primary nutrition program -Perform BMI tracking -Partner with Indiana Breastfeeding Alliance (IBFA) -Provide referrals to PSUPP clinics for termination of alcohol, tobacco and other drug use during pregnancy -Assist with media messages concerning smoking and pregnancy, interconception care, and ”I want my 9 months”	-Some WIC and MCH clinics are co-located, providing continuity of care	and WIC services and WIC travel is not paid for

Table 4: MCH Collaboration with Other Governmental Agencies

Collaborating Agency	**Population Served**	**Stakeholder Involvement**	**Strengths**	**Weaknesses**
Bureau of Child Development (FSSA)	Children	-Provide consultation, licensing, and certification of child care programs -Provide Indiana Child Care Quality Rating System program and information	-Provide method of linking child care providers -Child care consultants are professionals (nurses or nutritionists)	-Too few child care consultants to meet need
Commission on Hispanic/Latino Affairs (ICHLA)		-Participate in Early Childhood Comprehensive Systems (ECCS) steering committee and Indiana CISS Project Advisory Committee -Collaborate on prenatal smoking efforts.	-Provide Latino perspective when considering early childhood activities and developing programs as well as CSHCN	-Recurring staff changes impacts continuity
Division of Disability, Aging and Rehabilitative Services (FSSA)		-Parent agency for First Steps		
Division of Family Resources (FSSA)		-Partners with CSHCS to accept applications for Medicaid -Partners to provide funding for family planning services throughout the state		
First Steps (FSSA)	Children (0 – 11)	-Combined enrollment form used for both First steps and CSHCN	-Increased presence in local communities allow for easier access to	-Communication on policy issues between First Steps and CSHCN

		-Provides intervention services to children identified by positive Newborn Screening (NBS) -Collaboration with ISDH & Medicaid on NBS fee increase issues -Provide service coordination to children who do not pass Universal Newborn Hearing Screening and children at risk for late-onset hearing loss -Provides diagnostic assessment and early intervention -Participates in Early Hearing Detection and Intervention advisory committee -Membership on Early Childhood Comprehensive Systems initiative team (Core Partner) -Collaboration on development of Family Information & Resource Directory, Financial Fact sheets, Developmental Calendar in English and	program -Collaboration ensures funding for timely follow-up with infants having positive NBS screen - Early identification and intervention to children identified through Universal Newborn Hearing Screening prevents delayed language and speech development	- Getting hospital to refer children identified by Universal Newborn Hearing Screening to First Steps -Obtaining data for tracking

		Spanish		
Indiana Head Start State Collaboration Office (FSSA)		-Coordinates inter-agency system for low income children and children with disabilities	-Brings multiple agencies together	
Office of Faith-Based and Community Initiatives		Core partner in Early Childhood Comprehensive Systems initiative		Irregular participation due to limited staff

Office of Medicaid Planning & Policy (OMPP) – (FSSA)	Children (0 – 21) Women Pregnant Women	-Payment policy collaboration with Children's Special Health Care Service -Core partner in Early Childhood Comprehensive Systems initiative (Evaluation Committee) -Assisting in development of 'State of the Hoosier Child" report -Collaboration on development of Family Information & Resource Directory, Financial Fact sheets, Developmental Calendar in English and Spanish -Collaboration in development of new Prenatal Risking tool sensitive to psychosocial and nutrition issues -Collaboration on new rule and common contract language for local care coordinators -Collaboration on PNCC and FCC education for Medicaid Managed Care Organizations -Collaboration on	-Consistency & fairness to clients -Receptivity and interest in preserving care coordination program -Shared data -Active participation in projects	Program changes, especially cost-cutting can effect program -MCOs move slowly -Inter-agency politics can slow process

		Notification of Pregnancy (NOP) forms completed by all physicians at first prenatal visit -Participate in Quality Improvement Initiatives (e.g. Neonatal Quality Outcome) -Participate in setting of performance measures for Managed Care Organizations (e.g. prenatal smoking cessation)		
Department of Child Services (DCS)	Women of childbearing age	Streamline funding to ISDH to provide to IFHC to oversee all family planning services in the state	Collaboration, streamlined services; Data sharing	Funding continues to be decreased
Department of Corrections	Infants Children (ages 1 –	-Provide funding for "Wee Ones' nursery at	-Reduced infant placement in foster care	-Limited educational opportunities (e.g.

	18mo) Pregnant Women	Women's Prison -Offers Mother and Child Safe Care and Development program -Works with Craine House, step down program for early release of mothers		breastfeeding)
Department of Education (DOE)	Children (ages 0-5) Adolescents Young People (ages 10 -24)	-Core partner in Early Childhood Comprehensive Systems initiative and Indiana CISS Project Advisory Committee -Collaboration on development of Family Information & Resource Directory, Financial Fact sheets, Developmental Calendar in English and Spanish -Participate on EHDI advisory committee -Partner with CSHCS on early and late transition committees -Administration of Youth Risk Behavior Survey (YRBS) -Dissemination of YRBS data to schools and educators -Partnership on	-Assistance in transition of CSHC children in transition to school and then transition to independent living National survey results in weighted data (YRBS) -Guidance on meeting needs of educators -Ability to reach educators, administrators and student populations	-Weighted data gathering is time consuming and difficult

		trainings/curricula for HIV and sexuality -Member of ICIAH		
Department of Environmental Management	Infants Children (ages 1 – 5) Women (ages 14 – 44)	-Core partner in Early Childhood Comprehensive Systems initiative -Collaboration on development of Family Information & Resource Directory, Financial Fact sheets, Developmental Calendar in English and Spanish		
Division of Mental Health and Addiction (DMHA)	Women (14 – 44)	-Support Early Childhood Comprehensive Systems initiative (Social, Emotional, & Training Committee) -Collaboration on development of Family Information & Resource Directory, Financial Fact sheets, Developmental Calendar in English and Spanish--Key partner in project of certification and endorsement of early childcare providers on infant & toddler mental health -Provide funding support	-Increase capacity of trained providers -Support standards for infant and toddler mental health	

		for 7 PSUPP sites -Collaborate on Access to Recovery (ATR) program -Member of ICIAH		
Head Start Program	Children	-Participate (directors) in Indiana Head Start State Collaboration Office Multi-Agency Council	-Increased/regular collaboration between state agencies/programs	-
Indiana State Police	Adolescent	-Provides data for Title V block grant on adolescent population that are arrested		-Data not categorized by race/ethnicity
Indiana Tobacco Prevention and Cessation		-Collaborate on training of health care professionals -Provide materials to clinics -Participate in Coalition to Prevent Smoking During Pregnancy -Member of ICIAH	-Participate in attainment of performance measures -Good grass roots level access to reach more people around state	-Decreasing funding
Local Health Departments Elkhart County St. Joseph County Marion County Lake County Vanderburgh	Infants Pregnant Women	-Build infrastructure and relationships to address MCH concerns, measures, health indicators -Some are members of Indiana Breastfeeding Alliance (IBFA) - Fetal Infant Mortality Reviews	-County wide infrastructure to address MCH indicators (ex> infant mortality, LBW, prenatal care)	-Varying degrees of focus on different measures

Vocational Rehabilitation Services (FSSA)		-Provides referrals -Partners with CSHCS		

Table 5: MCH Collaboration with Other State and Local Public and Private Organizations

Collaborating Agency	**Population Served**	**Stakeholder Involvement**	**Strengths**	**Weaknesses**
American Academy of Pediatrics, Indiana Chapter	Infants Children Adolescents	-Partner with the Indiana CISS Project/Medical Home(MH) Learning Collaborative(LC) practices -Member of IN CISS Project Planning and Advisory Committees -Core partner in Early Childhood Comprehensive Systems initiative (Social, Emotional & Training and CISS committees) -Promote Bright Futures Program and AAP standards of care -Publish informational articles for Indiana Birth Defects and Problems Registry Participate in executive committee on prematurity initiative	-Pediatric practice recruitment for MH LC Project -Provide Pediatric perspective to IN CISS Project -Participation in community programs to promote education, policy and standards	
ARC of Indiana	All	-Member of the Indiana CISS advisory committee -Advocate for citizens with intellectual and developmental disabilities	-Advocacy	

Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN), Indiana Chapter		-Participate in executive committee on prematurity initiative -Participate in development of standards of care Membership in Indiana Perinatal Network		
Children's Trust Fund Board	Children	-Raises funds for child abuse prevention programs through sales of specialized license plates -Promote child abuse screenings at oral health care sites (since face is target area of abuse) -Advocate for policy and rule changes	-Membership comprised of representatives from various abuse prevention groups -Linkage with court system	-Fund raising methods---competition with other specialty plates
Coalition to Prevent Smoking in Pregnancy	Pregnant Women Women (ages 14 – 44)	-Promotes state Quitline and consumer education activities -Education of health care providers -Implementation of state media grant targeting 13 counties with highest smoking rate	-All members of council address smoking cessation	-Limited funding to continue public service announcements
College of Obstetricians, and Gynecologists, Indiana Chapter		-Participant in prematurity initiative -Participate in creating levels of care standard	-Access to OB/GYN physicians around the state	
Connect2Help	All	-Provides forum for	Long standing	

		discussion of standards, resources, policy and procedures in information and referral systems (I & R)	relationship with Indiana Family Help Line	
Council on Dental Public Health (Indiana Dental Association)	All	-Oral Health Director works with council	-Indiana dentists interested in community	
Covering Kids and Families, Indiana State Project		-Core partner in Early Childhood Comprehensive Systems initiative (participate as Executive Director Evaluation committee) -Indiana CISS Advisory Committee member	Provide information on current trends and issues concerning access to care and health insurance for children, statewide	
Dental Advisory Panel of OMPP	Medicaid population	-Group advises on Medicaid policy and claims procedures	-Dentists have input in OMPP decisions	
Donated Dental Services	Older adults, people with disabilities	-Indiana dentists volunteer services	-Increase access to oral health services	-Little impact on MCH population
Dyson Community Pediatrics Initiative		- Core partner in Early Childhood Comprehensive Systems initiative -Family Advisory Committee of ECCS	-Provides parental perspective concerning children with special health care needs	
Early Hearing Detection and Intervention (EHDI) Advisory Committee	Infants	-Provides input on EHDI program	-Committee is comprised of administrators, professionals, and parents	
EmberWood Center	Adolescents	-Steering committee member for Indiana	-Provide in-kind resources	

		Adolescent Coalition to Improve Adolescent Health (ICIAH)		
Family Voices, Indiana Chapter		-Provide support and information to families of children with special health care needs -Partners with CSHCS	-Provides family perspective on policy and funding changes	
IN 211 Partnership	Infants Children Pregnant Women Women (ages 14 – 44)	-Participate in Indiana Family Help Line through training and accepting referrals	-Open communication with statewide participants	
Indiana Academy of Family Physicians		-Partner with the Indiana CISS Project/Medical Home(MH) Learning Collaborative(LC) practices -Member of Indiana CISS Project Planning and Advisory Committees -Core partner in Early Childhood Comprehensive Systems initiative (core member of CISS) -Publish informational articles for Indiana Birth Defects and Problems Registry - Participate in executive committee on prematurity	-Family practice recruitment for MH LC Project -Provide Family practice perspective to IN CISS Project	

		initiative		
Indiana Association for Child Resource and Referral		-Core partner in Early Childhood Comprehensive Systems initiative -Assisting development of "State of the Hoosier Child" report"		
Indiana Association for the Education of Young Children	Children	Provide training and resources for child care providers (example :Safe Sleep)	-Can provide advocacy for policy	
Indiana Association for Infant and Toddler Mental \		-Core partner in Early Childhood Comprehensive Systems initiative -Assisting development of "State of the Hoosier Child" report" -Provide annual conferences and support other training -Lead in key project of certification and endorsement of early childcare providers on infant & toddler mental health		
Indiana Breastfeeding Alliance (IBFA)	Pregnant Women Women (ages 14 -44)	-Promotes breastfeeding -Provides direct services -Members provide direct lactation support services in their communities	-Recognized authority on breastfeeding in state -Broad-based membership -Long-standing	-Members volunteer time -Very limited financial resources

		-Provide education to daycare centers on breast milk storage and use -Provide education to businesses and working mothers on breastfeeding support in the workplace	committee, has produced a state plan for improving breastfeeding	
Indiana Certified Nurse Midwives	Pregnant women	-Participate in executive committee on prematurity initiative -Assist with prenatal care standards -Provide training and TA for Centering Pregnancy programs.		
Indiana Coalition to Improve Adolescent Health (ICIAH)	-Adolescents -Emerging adults (ages 10-24)	-Infrastructure building around adolescent health -Development of state adolescent health plan	-Linking partners with common goal of improving adolescents' health	-No funding to support ICIAH -Limited staff time to devote to facilitation of ICIAH
Indiana Family Health Council, Inc	-Women of childbearing age	-Partners to provide funding for family planning services throughout the state	-Statewide reach -Multiple delegate site locations -Streamline funding	
Indiana Dental Association	Children (0 – 21)	-Provide support to Oral Health Program		
Indiana Genetic Advisory Committee (IGAC)	All	-Provides input on Genomics program and activities of genetics services grantees	-Expertise provided by both professionals and consumers	Busy professionals have limited time to devote to IGAC subcommittee activities
Indiana Head Start		-Core partner in Early	-Collaborative office	

Association (IHSA)		Childhood Comprehensive Systems initiative	brings Head Start partners together	
Indiana Hemophilia and Thrombosis Center	Infants Children Adults	-Provides services for Sickle Cell Program -Provide funding for Amish outreach care coordination -Provide funding for Amish dental		-Families responsible for follow-up contact with hospitals and projects -Many cases with positive screens for hemoglobinopathies are closed due to lack of parent response
Indiana Hospital Association		- Participate in executive committee on prematurity initiative -share data -assist with trainings, communication with hospitals	-Access to birthing hospital administration -In-kind support	
Indiana Institute on Disability and Community (IDC), Early Childhood Center		-Core partner in Early Childhood Comprehensive Systems initiative (Family Advisory, Evaluation committees) -Maintains website for Early Childhood Meeting Place (ECMP) resource clearing house	-Emphasis on bringing communities and parents of children with special needs together	
Indiana Minority Health Coalition		-Core partner in Early Childhood Comprehensive Systems initiative -Local level work occurs	-Access to minority community	-Limited funding to invest in all projects of interest

		in disparity counties work (e.g. Lake, Marion, St Joseph)		
Indiana Perinatal Network	Infants Pregnant Women Women (ages 14 – 44)	-Provide infrastructure building -Disseminate information to prenatal care providers -Advocate and monitor legislation Provide professional education	-Provide statewide reach for programs -Advocate for policy and legislative changes -Recognition in state as perinatal leader	-Decreasing funding -Independent direction
Indiana Public Health Association	All Public Health Professionals	-Provide professional development for state and local public health professionals -Partner on accreditation opportunities	-Recent growth and expansion of state wide executive partners State Lobbying efforts for Public Health	
Indiana Public Health Foundation	Children (0 – 21)	-Provide support to Oral Health Division	Recent growth and expansion of state wide executive partners State Lobbying efforts for Public Health	
Indiana Rural Health Association		-Participate in levels of care initiative -Participate on executive work group for prematurity initiative	-Provide view of rural communities -Allow assessment of rural communities -Growth and expansion of state wide executive partners State Lobbying efforts for Public Health	
Indiana School for the Deaf		-Participate on EHDI Advisory committee		

		-Participate on state advisory committee for deaf and hard-of-hearing		
Indiana University Center of Excellence for Women's Health	Women	-MCH member of Program Development Committee -Partner with Indiana Perinatal Network on Best Practices Committee -Participate in program development on perinatal and prenatal issues - Participate in executive committee on prematurity initiative	-Focus on women's issues -Access to leaders around the state	
Indiana University Laboratory	Infants	- Provides limited initial follow-up for children with abnormal or presumptive positive newborn screens	-Technical expertise -Long term collaboration	
Indiana University School of Dentistry	Low-income children	-Operates SEAL INDIANA (provides sealant placement)	-Services provided and link with dental home	-Need for local school-based sealant programs
Indiana University School of Medicine	Infants Children (ages 1-21) Children/Youth with Special Health Needs Pregnant Women Women (ages 14-44)	-Pediatric staff contracted to work with Community Integrated System of Services (CISS)on Medical Home collaborative -Section of Adolescent Medicine steering committee member for ICIAH	-Access to research faculty and healthcare professionals -Provide in-kind resources -Training Program for parents/family members of CYSHCN to develop skills necessary to build parent/professional	

		-Provide research and evaluation on adolescent health and behaviors for committee and grantees -Provide services for high risk prenatal clinics -Receive Title V funding for prenatal care, children with special needs, genetics counseling - Leadership Education in Neurodevelopmental and Related Disorders (LEND)	partnerships	
Indiana University School of Nursing		-Provide evaluation services for community project		
Infant Health and Survival Council	Infants Pregnant Women	-Community council providing advice to MCH -Develops statewide conferences on infant health, survival and bereavement	-Dedication of council members to infant health	
InSource Indiana		-Advocate for special education -Provide trainings for families -Participate on Indiana Community Integrated System of Services, Indiana (CISS) Advisory committee	Advocacy for families	
March of Dimes (MOD)	Infants	-Participate on Indiana	-Provide in-kind	-Limited partnership

		Genetics Advisory Council -Partner in State Prematurity Initiative -Share resources -Training opportunities -Partner on local disparity initiatives -Share data -Share expert speakers, research on prematurity issues	resources -Access to county coalitions -Common goals	opportunities due to lobbying activities of MOD
Marion County Commission on Youth	Adolescents and youth workers	-Serve as member of ICIAH steering committee	-Excel in positive youth development	
National Association of Pediatric Nurse Practitioners		-Core partner in Early Childhood Comprehensive Systems initiative -Nurse-practitioners are primary health care providers in MCH clinics -Provide preliminary oral assessments and referrals		
National Association of Social Workers (NASW)	Pregnant Women	-Provides education and certification of Prenatal Care Coordinators (PNCCs) -Key participant in development of new Prenatal Risking Tool		
Newborn Hearing Screening Advisory	Infants	-Provides revisions and updates to hospital		-Follow-up system for children at risk or

Committee		manuals on Newborn Hearing Screening		children requiring services is not completely developed
Oral Health Task Force	All	Includes IUSD, IDA, Dental Hygienists Association, Dental Assistants Association, IPHCA, local dentists, and other interested stakeholders	-Developing into Oral Health Coalition, which will work on Oral Health State Plan -Meeting quarterly to advise ISDH Oral Health Program	-Minimal oral health staff to work with group
Riley Hospital for Children	CSHCN Infants Children 1-21	-Provide medical follow-up programs for children identified via Newborn Screening -Provide some follow-up services in medical genetics, metabolic genetics, pediatric endocrinology and cystic fibrosis -Provides on-site locations for CSHCS applications and increased awareness for programs -Collaborates with CSHCS to provide newborn follow-up services in Developmental Pediatrics -Collaborates with CSHCS in providing	-Increased efficiency in CSHCS enrollment	

		services at spina bifida clinic		
School Systems ---Dubois County (Tri-Cap Family Health Services) ---Lake County (CLASS) ---LaPorte County (Open Door Adolescent Health Center)	-Adolescents -Young people attending high school	-Provide site for school-based adolescent health center	-Connects adolescents and their families with health resources and services -Provides referrals to community agencies for health services	-Limited funding to support clinics (only three clinics currently funded)
Prenatal Substance Use Prevention Program (PSUPP) Clinics	Pregnant Women	Fourteen agencies (local health departments and clinics) provide site for prenatal substance use intervention -Provide in-kind program financial support -Provide direct services	-Good collaboration between referring physicians and PSUPP staff -Staff familiar with situation in their community	-Some site set-up such that contact is via home visits and phone calls but population is transient -Decreasing funding
Purdue University	Adolescents	-Steering committee member of Indiana Coalition to Improve Adolescent Health -House and maintain ICIAH website	-In-kind resources -Technical expertise	
Stare Perinatal Advisory Board (SPAB)	Infants Pregnant Women Women (ages 14- 44)	-Provides advice on MCH issues	-Board is comprised of experts and professionals from around the state	-Recruiting greater participation from rural counties and minorities
United Way		-Core partner in Early Childhood Comprehensive Systems initiative -Partner in Success by	-Active participant in ECCS initiative -Provide some local funding/grants	

		Six program to increase children's readiness for school -Provide assistance with community assessments		

B.3 Strengths and Needs of the Maternal and Child Health Population Groups and Desired Outcomes

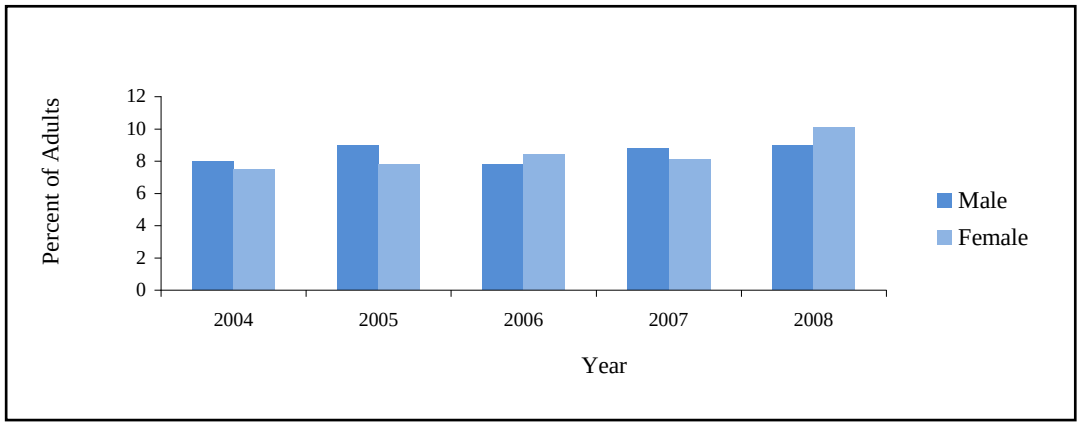
The qualitative and quantitative overview of Indiana's MCH populations is presented in five categories for ease of readability. The categories are (1) maternal and women's health, (2) pregnant women, (3) infants, (4) children and adolescents, and (5) children with special health needs. Topics in each section focus on issues relevant to that population. Where data are available, analysis includes information on subpopulations and/or specific locales. Finally, disparities in care and/or health issues are emphasized where necessary.

(1) Maternal and Women's Health

Numerous health behaviors and diseases impact the health of women of child-bearing age. Many of these behaviors and issues are inter-related not only with pregnancy outcomes but also the future health of the mother and her offspring. This section focuses on the leading issues of diabetes, cancer, and smoking.

Diabetes--Diabetes is a serious disease, at times causing death even in those who have not developed complications. Diabetes is a leading cause of blindness, kidney disease, and lower extremity amputations. Cardiovascular complications are another impact of diabetes and are the leading cause of mortality and long-term morbidity for individuals with diabetes
.
Risk factors for Type 1 Diabetes include autoimmune, genetic and environmental influences. Risk factors for Type 2 Diabetes include both genetic and lifestyle factors. Risk factors can be classified as modifiable and non- modifiable. Non-modifiable risk factors include gender, history of Gestational Diabetes Mellitis (GDM) and genetic factors such as race and ethnicity. Modifiable risk factors are obesity, physical inactivity, and nutritional factors. Lower educational and income levels also increase the risk of Type 2 Diabetes. According to the BRFSS data, about 0.18 per 1,000 10 to 19 year olds in Indiana have Type 2 Diabetes.

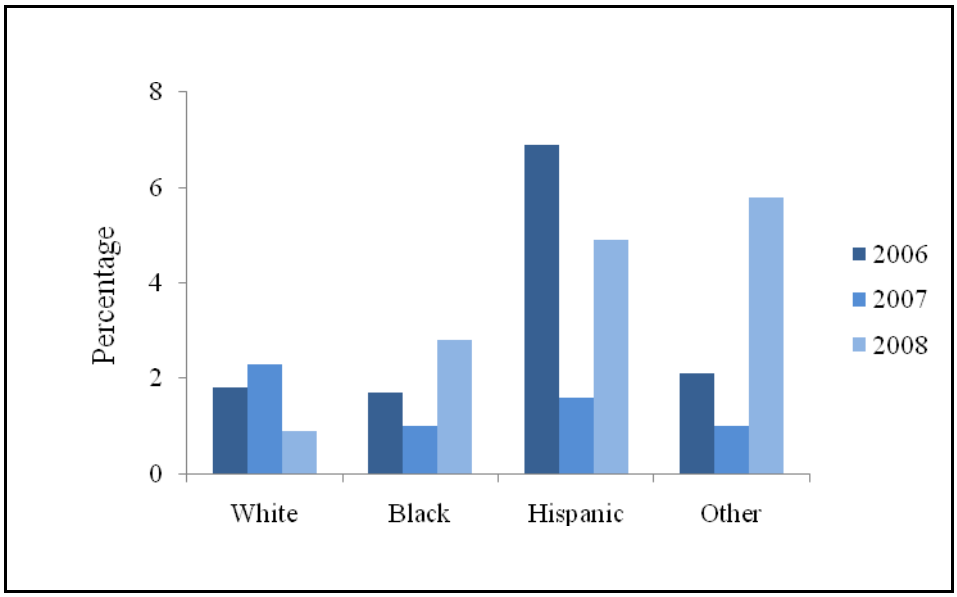
Figure 1
Diabetes Prevalence by Gender (Ages 18 Years and Older)
Indiana and U.S: 2004-2008



Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [March 20, 2009]. **Original Data From**: Indiana State Department of Health, PHPC, ERC, Data Analysis Team. BRFSS

In 2008, adult females in Indiana had a higher prevalence of diabetes than males (10.1%, 9%) though it was not statistically significant. However, the prevalence of diabetes in women was significantly higher in 2008 than in 2004-2005.

Figure 2
Gestational Diabetes Prevalence by Race
Indiana: 2006 - 2008*



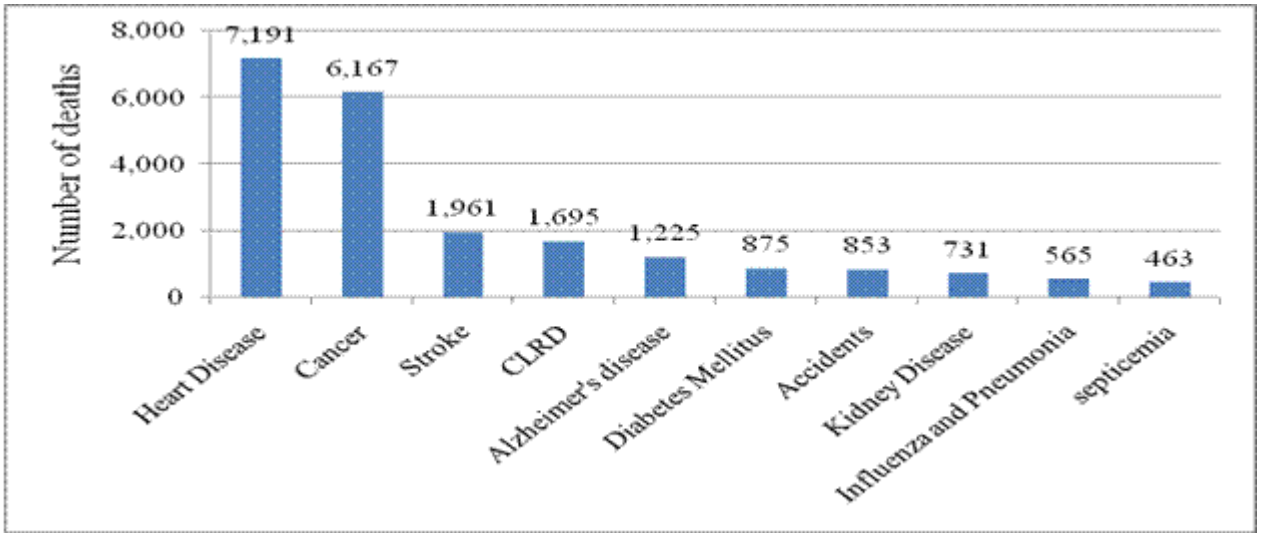
*Data represent residents 18 years and older. Please see appendix for the data pertaining to this figure, including 95% confidence intervals used to assess whether observed differences between groups are statistically significant. **Source**: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [March 20, 2009]. **Original data from**: Indiana State Department of Health, PHPC, ERC, Data Analysis Team. Behavioral Risk Factor Surveillance System

Women who are diagnosed with gestational diabetes have a 20% to 50% chance of developing diabetes in the next 5 to 10 years. Black, Hispanic, and American Indian females are at greater risk of developing gestational diabetes than white females.

Global data also estimate a threefold increased risk of the mothers developing diabetes later in life and eightfold increased risk of the offspring developing diabetes or pre-diabetes by ages 19 to 27. US data estimate a 15% to 50% (increased?) risk of a woman developing diabetes later in life, if she has a history of GDM The primary immediate risk from uncontrolled GDM for both mother and child results from a tendency for the baby to be large for gestational age (macrosomia). This leads to increased difficulty with delivery due to the large size, and increased risk of complications to both mother and child, including physical trauma during the birth process.

Causes of Death in Women--The six leading causes of death among women in Indiana were heart disease (295.4/100,000), cancer (253.4/100,000), stroke (80.6/100,000), chronic obstructive pulmonary disease-COPD (69.7/100,000), Alzheimer's Disease (50.3/100,000), and Diabetes Mellitus (35.9/100,000).

Figure 3
Six Leading Causes of Death Among Women
Indiana: 2006



Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [March 20, 2009].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team. Behavioral Risk Factor Surveillance System

Cardiovascular disease (CVD)-- Including heart disease and stroke, is the number one cause of death among women in Indiana. Diseases of the heart are the leading cause of death for all racial and ethnic groups. Incidence rates are not reportable so estimates of incidence are based on the number of deaths reported. For 2006, 7,191 women died from heart disease for a rate of 173.8 and 7,105 men in Indiana died from heart disease for a rate of 271.1. The mortality rates for black females were 217.9 while that in white females was 172.0. Heart disease was the leading cause of death among women 65 years and older.

The prevalence of heart disease is on the rise among women in Indiana. For 2008, the prevalence of coronary heart disease among women was 4.1% and in men was 5.8%. The prevalence of heart attacks was 3.4% among women and 6.7% among men. The prevalence of heart disease among white non- Hispanic women (4.1%) exceeded Hispanic women (3.7%) and black non-Hispanic women (3.4%). (The difference is not statistically significant). The prevalence of heart attacks among black non-Hispanic females (5.7%) exceeded white non-Hispanic females (3.3%) and Hispanic females (2.5%). (The difference is not statistically significant). The prevalence of coronary heart disease was highest among women 65 years and older (13.1%). Though not statistically significant, the prevalence of coronary heart disease and heart attacks among women in Indiana was greater than the prevalence among women in the United States (3.4%).

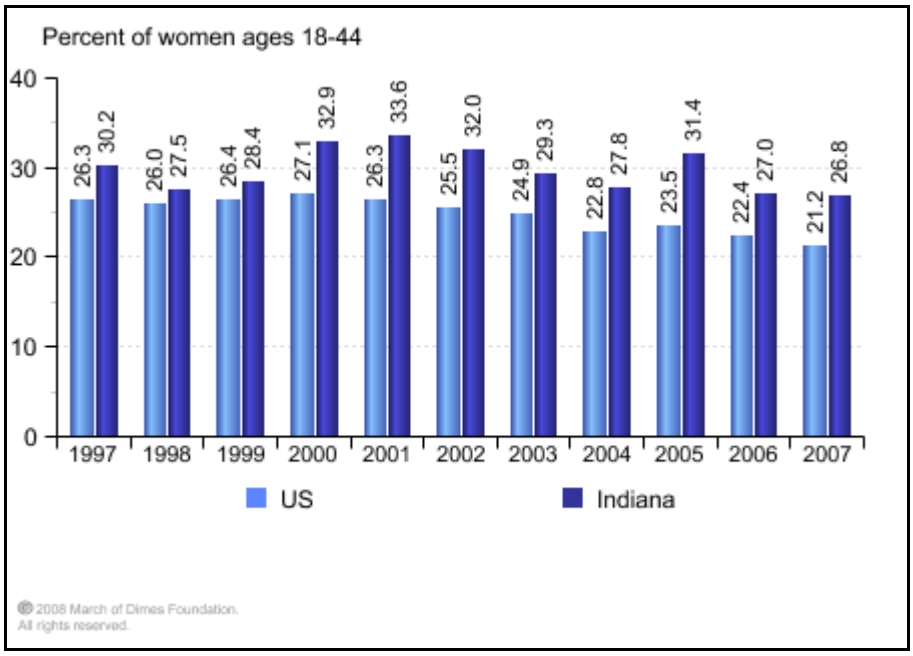
Heart disease was the second leading cause of hospitalization (pregnancy and childbirth being the first) for women in Indiana. For 2007, the number of discharges associated with heart diseases among women was 35,656. Out of these, the number of discharges associated with ischemic heart disease was 13,068, heart failure was 10,485, and conduction disorders along with disrhythmias were 7,800.

Risk factors for cardiovascular disease in women include: smoking, high blood cholesterol (low-density lipoprotein or LDL) levels, high blood pressure, physical inactivity, being overweight, poor nutrition, having diabetes, aging, heredity and genetic history, history of previous heart attack, birth control use by women who smoke or have high blood pressure, menopause, and excessive drinking.

Cancer--According to the Indiana Cancer Registry, cancer was the second leading cause of death among women in Indiana in 2006. The cancer incidence among women in Indiana significantly decreased from 424/100,000 in 2003 to 393.6/100,000 in 2005. The incidence of breast cancer was highest (109.5/100,000) followed by lung and bronchus cancer (60.1/100,000), and then colon (excluding rectum) cancer (33.5/100,000). Cancer mortality rates were highest among women 45 to 64 years old, while incidence rates were highest among women 65 years and older. Overall, mortality rates due to breast cancer were higher in black women than in white women (192.12/100,000; 165.57/100,000). The incidence of breast cancer was higher among white women (109.4/100,000) as compared to black (103.7/100,000). However, the incidence of colon cancer was higher among black women (42.6/100,000) as compared to white women (32.3/100,000). In 2007, cancers were the fifth leading cause of hospitalization among women in Indiana. The number of hospital discharges associated with cancers among women was 10,700. Even though breast cancer is the most prevalent cancer in women in Indiana, lung cancer causes the most deaths to women in Indiana by cancer.

Smoking--Another problem Indiana is facing is smoking among women of child-bearing age (18-44 years old). Even though the rates have been decreasing since 2001, Indiana remains consistently higher than the rest of the United States. Indiana's rates peaked in 2001 at 33.6% and have since steadily decreased to 26.8% in 2007. The US percentage in 2007 was much lower at 21.2% of women smoking between the ages of 18 and 44. Figure 4, from the March of Dimes, compares the percentage of women in Indiana aged 18 to 44 who smoke, with the national rate.

Figure 4
Percentage of Women (Ages 18 -44) Who Smoke
In Indiana and United States: 1997-2007



Source: Smoking: Behavioral Risk Factor Surveillance System. Behavioral Surveillance Branch, Centers for Disease Control and Prevention (retrieved March 30, 2009, from www.marchofdimes.com/peristats)

Pregnant Women

Areas reviewed under the current need assessment include terminated pregnancies, short-interval pregnancies, prenatal care, delivery time and method, smoking during pregnancy, drinking during pregnancy, and breastfeeding. The rationale for examining these areas is the increased health and well-being of the maternal, infant, and child population as well as the reduction in financial burden that results from prevention. Short interval pregnancies and early induction of labor are known to contribute to premature and low birth weight babies, increasing the infant survival risk during the first year. Late/no entry into prenatal care increases the health risk to the mother in terms of undiagnosed pregnancy-related hypertension, gestational diabetes, and HIV transmission between mother and child. Late/no entry into prenatal care has also been associated with increased infant mortality and congenital birth defects. Smoking during pregnancy increases the risk for both a preterm delivery as well as a low birth weight baby. Smoking during pregnancy has also been linked to congenital abnormalities in the infant as well as placental problems for the mother. Alcohol is a known teratogen and drinking during pregnancy increases the risk of an alcohol-related birth defect. Breastfeeding provides immunity to the infant as well as reduces the infant's later risk of overweight/obesity. Examination of trends in each of these areas will provide a focus for the next five years.

Terminated Pregnancy--Indiana has decreased the rate of terminated pregnancies between 2000 (8.6) and 2005 (7.8). Of the 10,686 women who had a pregnancy terminated in 2005, 10,224 (95.7%) were Indiana residents. Of those occurrences, 6,898 (64.6%) of the women were white; 3,084 (28.9%) were black; 326 (3.1%) were of other races; and 378 (3.5%) were of unknown

race. Non-Hispanic women comprised 8,532 (79.8%) of these occurrences and 745 (7.0%) were of Hispanic origin. Ethnicity was unknown for 1,409 (13.2%) of the women. In 2005, 10,189 (95.3%) of the terminations were performed in clinics; 497 (4.7%) were performed in hospitals.

Short Interval Pregnancy--The report, Short Interpregnancy Intervals and the Risks of Adverse Birth Outcomes in Indiana: Statistics from the Live Birth Data 1990-2005, presents trends in prevalence of short interpregnancy intervals among singleton births in Indiana from 1990 to 2005. (Short interpregnancy interval is defined as less than 12 completed months between the last live birth and conception. It is computed by calculating the interval between two consecutive deliveries minus the gestational age of the second infant.) With data obtained from birth certificates, this report includes information on low birth weight, preterm birth, and small-for-gestational age rates at various interpregnancy intervals. Controlling for potential confounding variables, it also examines the association between short interpregnancy interval and adverse birth outcomes.

According to a John Hopkins' report and the *International Journal of Gynecology & Obstetrics*, babies born after a short interpregnancy interval are at greater risk of low birth weight. Since the early 1990's, the percentage of Indiana births following a short interpregnancy interval of less than 12 months declined by 14 percent, from 21.1 to 18.3 percent. In the 2002-2005 period, 9.2 percent of non-Hispanic black multiparous mothers had an interpregnancy interval of less than 6 months compared to 5.5 and 6.9 percent among their non-Hispanic white and Hispanic counterparts, respectively.

Mothers with short interpregnancy interval were more likely to be black, Hispanic, under 25 years of age, less educated, single, of higher parity, smoker, and receiving inadequate or no prenatal care when compared to mothers with longer interpregnancy interval.

Short interpregnancy interval was associated with significantly higher risks of low birth weight, preterm, and small-for gestational age births. The negative impact of short interpregnancy interval was stronger for very low birth weight and very preterm births. The prevalence of short interpregnancy intervals was highest among multiparous teen mothers followed by those in their early twenties.

According to the Pregnancy Nutrition Surveillance System (PNSS) which, in Indiana, is collected during prenatal WIC visits, Indiana has had higher rates of short interpregnancy interval compared to the US over the past 3 years (2004-2006).

Table 1
Percent of Short Interpregnancy Intervals
Indiana and US: 2004-2006

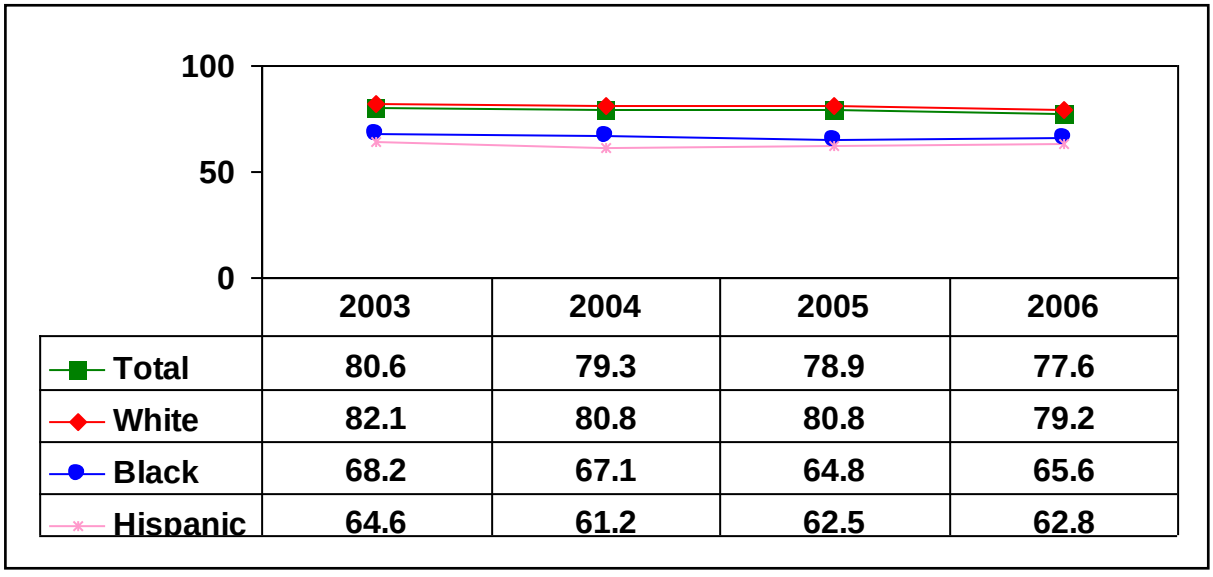
Year	Indiana	United States
2004	15.6%	13.4%
2005	16.7%	13.0%
2006	15.6%	13.1%

Source: Pregnancy Nutrition Surveillance System. *2004-2006* Retrieved [04/12/08] from http://www.cdc.gov/pednss/pnss_tables/tables_numeric.htm

Considering the adverse effect of short interpregnancy intervals of up to 12 months on birth outcomes, efforts of public health agencies to improve birth spacing should continue beyond 6 months postpartum, especially in those high risk populations such as non-Hispanic blacks, Hispanics, the young, unmarried and uneducated mothers.

Prenatal Care--The Healthy People 2010 Goal is that 90% of women receive prenatal care within the first trimester of pregnancy. The objective is to monitor the health of the mother and fetus as early as possible. In Indiana, from 2002 through 2006, there has been a decline in the percentage of women who have received prenatal care within the first trimester each year in all races and ethnicities. The overall percentage dropped from 80.6% in 2003 to 77.6% in 2006. The percentage for whites decreased from 82.1% in 2003 to 79.2% in 2006 while the percentage for blacks decreased from 68.2% in 2003 to 65.6 % in 2006. The Hispanic population actually alternated between increases and decreases each year, but in 2006 was lower (62.8%) than the percentage in 2003 (64.6%). The Hispanic population actually alternated between increases and decreases each year, but in 2006 was lower (62.8%) than the percentage in 2003 (64.6%). With the current trend, Indiana will not reach the 2010 Health People Goal of 90% receiving prenatal care within the first trimester. Figure 5 demonstrates the trends of prenatal care within the first trimester in Indiana, from 2003 through 2006, by race and ethnicity.

Figure 5
Percent of Infants Born to Mothers Receiving
Prenatal Care in the First Trimester by Race and Ethnicity
Indiana: 2003-2006
(See Note Below for 2007 Data)



	2003	2004	2005	2006
Total	80.6	79.3	78.9	77.6
White	82.1	80.8	80.8	79.2
Black	68.2	67.1	64.8	65.6
Hispanic	64.6	61.2	62.5	62.8

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [March 20, 2009].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team.

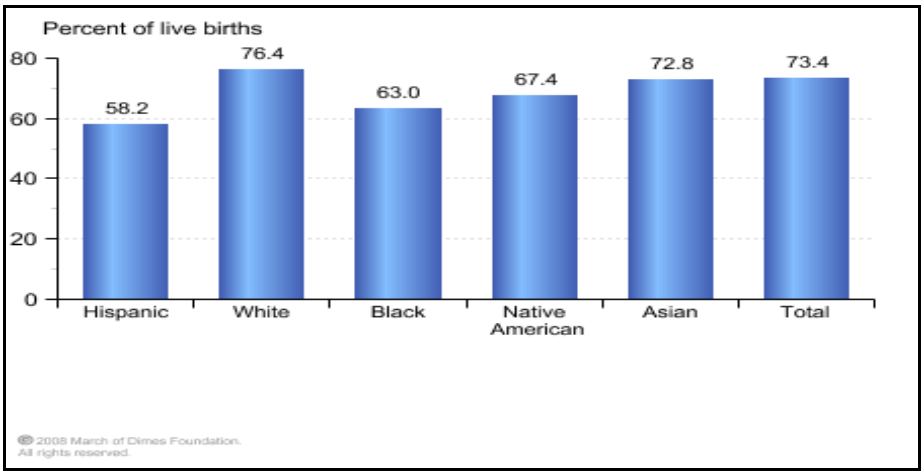
In 2007, Indiana started using the revised birth certificate (2003 version), which had different questions about prenatal care in the first trimester, making straightforward comparisons to previous years impossible. Indiana was notified in June of 2009 by the Centers for Disease

Control and Prevention, National Center for Health Statistics (NCHS) that the state would see decreases in the percent of mothers receiving prenatal care in the first trimester, and that these changes had been observed in every state using the revised birth certificate. Indiana was informed to use 2007 as a new baseline going forward. The NCHS official position is that the data provided by the 1989 (unrevised) and 2003 (revised) birth certificates are not comparable. The 2007 data shows that only 67.5% of Indiana mothers are receiving prenatal care in the first trimester, 69.4% for white, 53.4% for black and 49.5% for Hispanic. These percentages will be the new baselines moving forward with the revised birth certificate.

Another way of defining prenatal care is the Kotelchuck Index, also known as the Adequacy of Prenatal Care Utilization (APNCU) Index. The Kotelchuck Index combines the month prenatal care began with the number of prenatal visits from the start of prenatal care up to the delivery and compares it with a standard number of visits. The Kotelchuck divides prenatal care into four categories; Inadequate (received less than 50% of visits), intermediate (50-79%), Adequate (80-109%) and Adequate Plus (110% or more). The goal is for at least 90% of women to receive Adequate/Adequate Plus care, which means they would attend at least 80% of their expected visits.

The overall percentage of women in Indiana who received Adequate/Adequate Plus Care declined from 2002 to 2006. The percentage in 2002 was 74.3, but the average over the next three years from 2003-2005 was below that number at 72.6%. In 2007 the percentage dropped to 70.3%, and provisional 2008 data shows even a further droop to 69.8% of Indiana residents having adequate prenatal care." This number is well below the goal of at least 90% of women receiving Adequate/Adequate Plus Care. In the white population, the 2002 percentage was 76.9, but decreased over the next three years with the 2003-2005 average being 76.4% of women receiving Adequate/Adequate Plus Care in Indiana. The APNCU of the black population also decreased over this time period from 64.2% to 63% of women receiving Adequate/Adequate Plus Care in Indiana. The Hispanic population is the most unstable group, with their percentage moving up and down over this time, but the 2003-2005 average was a very low 58.2 percent of women receiving Adequate/Adequate Plus Care in Indiana. At the current trend, Indiana will not meet the goal of at least 90% of women receiving Adequate/Adequate Plus Care. Figure 6 demonstrates the percentages of Adequate/Adequate Plus Care by race and ethnicity between 2003 and 2005 within Indiana.

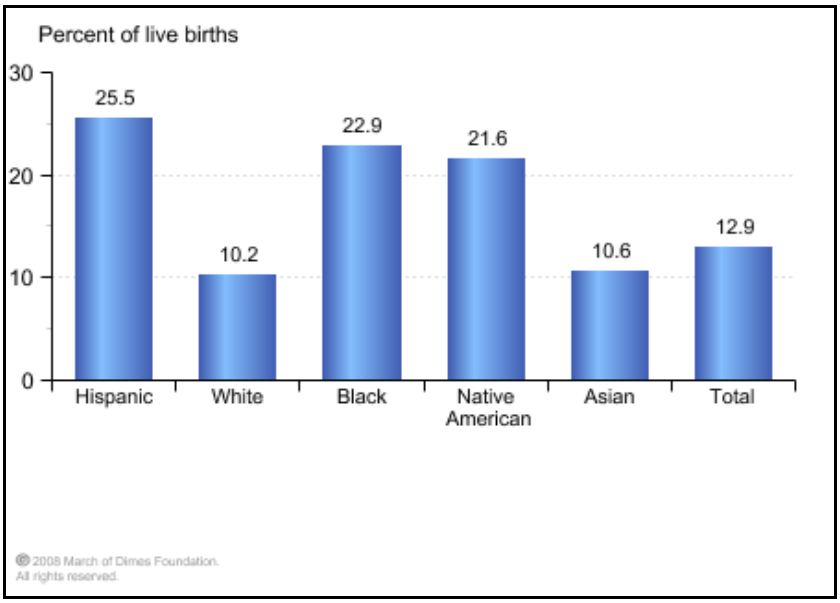
Figure 6
Adequate and Adequate Plus Prenatal Care by Race and Ethnicity
Indiana: 2003-2005



Source: National Center for Health Statistics, final natality data. (retrieved March 25, 2009, from www.marchofdimes.com/peristats); Kotelchuck M. "An evaluation of the Kessner Adequacy of Prenatal Care Index and a proposed Adequacy of Prenatal Care Utilization Index", Am J Public Health 1994; 84: 1414-1420. (retrieved March 25, 2009, from www.marchofdimes.com/peristats)

Using the same Kotelchuck Index, Indiana has a high rate of women receiving Inadequate Care, which is less than 50% of expected visits. Over 1 out of 4 (25.5%) Hispanic women in Indiana did not receive adequate care between 2003 and 2005. Nearly one out of four (22.9%) black women in Indiana also received inadequate care in these years. One out of ten white women (10.2%) received Inadequate Care between 2003 and 2005 in Indiana. The overall percentage of women who received inadequate care in Indiana from 2003-2005 was 12.9. (Figure 7 follows.

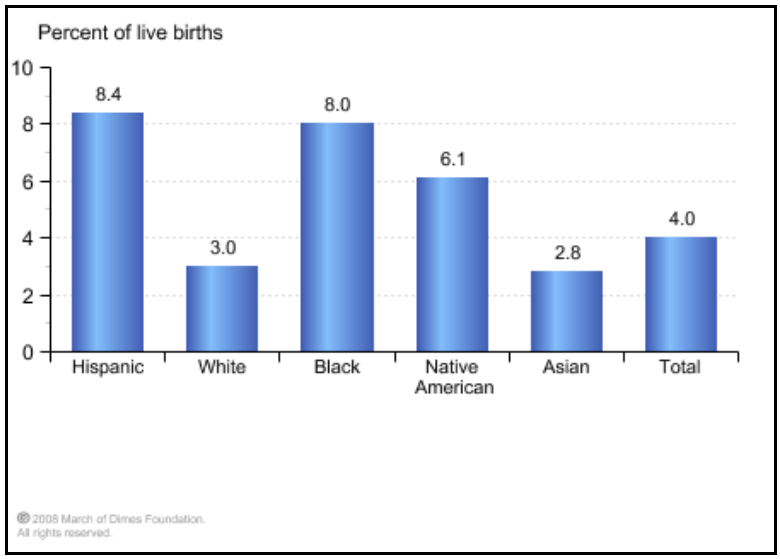
Figure 7
Inadequate Prenatal Care by Race and Ethnicity:
Indiana: 2003-2005



Source: National Center for Health Statistics, final natality data (retrieved March 25, 2009, from www.marchofdimes.com/peristats); Kotelchuck M. "An evaluation of the Kessner Adequacy of Prenatal Care Index and a proposed Adequacy of Prenatal Care Utilization Index", Am J Public Health 1994; 84: 1414-1420 (retrieved March 25, 2009, from www.marchofdimes.com/peristats)

Another area of concern in Indiana is the percentage of women receiving late (after the 7th month of pregnancy) or no prenatal care. In 2002 the percentage was 3.5, but then climbed each year to 3.8% in 2003, then 4.0% in 2004 and finally 4.2% in 2005. The overall state average during this time was 4.0%. The Hispanic (8.4%) and black (8.0%) percentages were much higher than the white (3.0%) average from 2003 to 2005. (Figure 8 follows.)

Figure 8
Late and No prenatal Care by Race and Ethnicity:
Indiana: 2003-2005



Source: NCHS, final natality data (retrieved March 25, 2009, from www.marchofdimes.com/peristats)

Cesarean Delivery--Between 1990 and 1997 the cesarean delivery rate fell from 21.9% to 19.8% in Indiana. The rate then started to steadily increase reaching 29.3% in 2006. This increase in rate is consistent with the national rate. Cesarean rates increased for both singleton and multiple births. Rates also increased similarly among whites, blacks and Hispanics. Among singleton births, cesarean delivery rates increased as gestational age decreased. The upward trend in cesarean rates was evident across all gestational age categories with the largest increase among late preterm births, born between 34 and 36 weeks gestation, which was 40 percent.

Among indications listed for cesarean deliveries, repeat cesarean had the highest ratio throughout the 1990-2006 period with relatively stable rates during the 1990's and increasing from 34% in 1999 to 42% in 2006. Cephalopelvic disproportion declined consistently from 23% to 7%. Breech or malpresentation increased from 17% in 1990 to 20% in 1999 followed by a decline to 13% in 2006. Fetal distress declined only slightly from 14% to 12%, and unsuccessful vaginal birth after cesarean (VBAC) increased from 2.3% in 1990 to 4.5% in 1997 and then declined to less than 1% in 2006.

Induction of Labor--Between 1990 and 2006, rate of induction of labor almost tripled in Indiana, from 9.3% to 26.9%. The upward trend in induction rate in Indiana was similar to the national average between 1990 and 1995, but then the rate in Indiana increased at a greater extent than the national rate. Between 1990 and 2006 the rates were higher and increased at a greater extent for whites, compared to the black and Hispanic rates.

The upward trend in induction rates was evident across all gestational age categories. Between 1990 and 2006, induction rate for singleton birth increased to a greater extent among vaginal deliveries (from 9.4% to 31.9%) compared to primary cesareans (from 14.9% to 29.1%). The induction rate for repeat cesarean deliveries had an upward trend from 1990 (1.7%) to 1998 (6.5%) followed by a decline to a low of 1.3% in 2006, a similar pattern to changes in VBAC.

Cesarean Delivery and Induction of Labor by Day of Week--There was an average of 245 births a day in Indiana in 2006. Analysis shows that there is a considerable difference in the average number if births by specific day of the week. The highest days are Wednesdays and Thursdays, averaging about 285 births a day, and the lowest being on Sundays, averaging just 146 births per day.

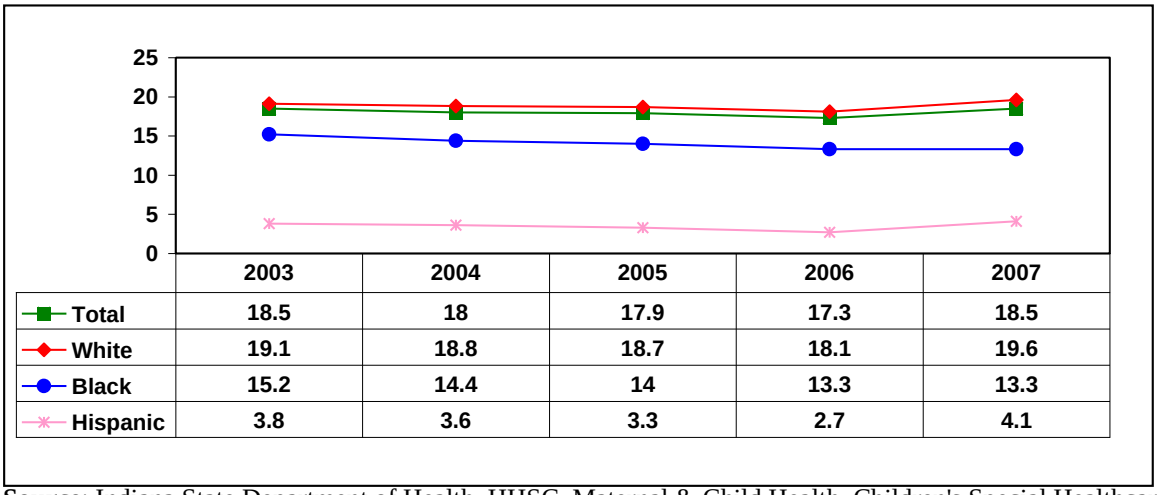
To measure the variation in the daily pattern of births, an index of occurrence (the ratio of the average number of births per day of the week to the average number of births per day of the year with the base set at 100) is used. In 2006, the index of occurrence between Tuesday and Thursday was 15.9-16.6 percent higher than on other days. On Saturdays, the number of births was 26.3% lower, and 40.2% lower on Sundays than on other days according to the index. Between 1990 and 2006, the index of occurrence declined consistently for Saturday, 88.3- 73.7, and also on Sunday, from 79.6 to 59.8, showing a clear decreasing in the trend of births on weekends.

The scheduling of cesarean delivery and induction of labor can influence the pattern in the average number of births by day of the week. In 2006, the index of occurrence ranged widely for the repeat cesarean delivery from 29.0 on Sunday to 143.3 on Friday, as well for induced vaginal delivery, (from 30.7 on Sunday to 134.6 on Thursday). This is in sharp contrast to the narrow range for spontaneous vaginal births (excluding inductions) of 83.2 on Sunday to 107.6 on Monday.

In 2006, of the average number of live births on Wednesdays, 25% were induced vaginal births and 13% were repeat cesarean, more than double the corresponding proportions on Sunday (12% and 6%) pointing to a sharp difference in scheduling of the induction and cesarean delivery between weekend and weekday. Between 1990 and 2006, index of occurrence of birth on Sunday declined noticeably for both vaginal (from 85.7 to 66.5) and cesarean (59.0 to 42.8) deliveries but was drastically lower for induced vaginal births compared to those not induced.

Smoking--The Healthy People 2010 Goal is for 99% of pregnant women not to smoke. Indiana has shown a decreasing trend in the number of women who smoke between 2003 and 2007, before slightly increasing; the same as between 1999 and 2002, but still is nowhere near meeting the goal. In 2003 the percentage of women in Indiana who smoked while pregnant was 18.5, and decreased to 17.3 in 2006, before increasing back to 18.5% in 2007. The white prenatal smoking population decreased between 2002 and 2006 from 19.9% to 18.1%, before increasing to 19.6% in 2007, and is still the highest among race and ethnicity. The black population made in improvement between 2003 and 2007 from 15.2% to 13.3%. The Hispanic is once again the lowest among race and ethnicity with 3.8% in 2003 and 4.1% smoking while pregnant in 2006. None of the groups are on pace to meet the 2010 goal, but the Hispanic population closing in on the goal. Figure 9 demonstrates the current trend between 2003 and 2007 in smoking among pregnant women in Indiana.

Figure 9
Percent Smoking During Pregnancy by Race and Ethnicity
Indiana: 2003-2007

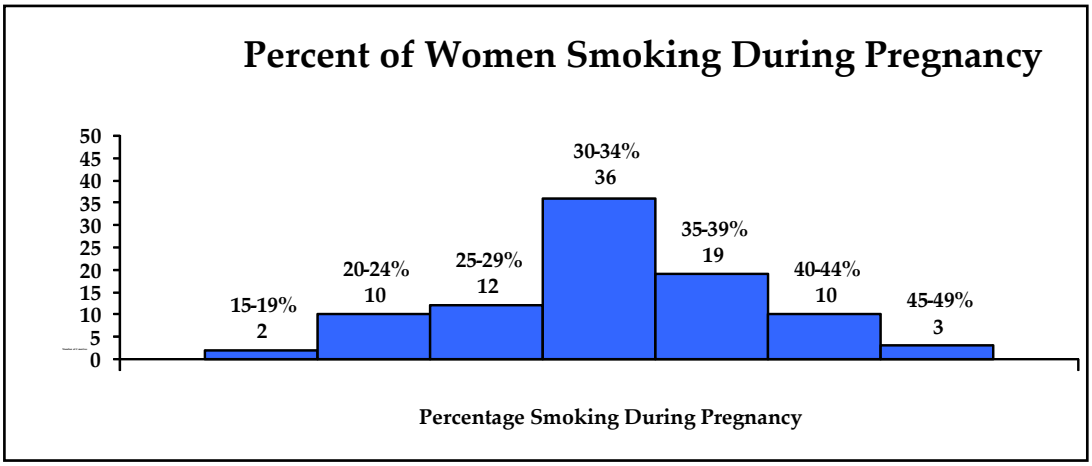


	2003	2004	2005	2006	2007
Total	18.5	18	17.9	17.3	18.5
White	19.1	18.8	18.7	18.1	19.6
Black	15.2	14.4	14	13.3	13.3
Hispanic	3.8	3.6	3.3	2.7	4.1

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [November 21, 2009].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team.

Another population that has a high smoking rate is the percent of pregnant women on Medicaid. This is alarming since 51% of pregnant women in Indiana were on Medicaid in 2007. For 2007, birth records for Medicaid recipients were reviewed. Women that indicated smoking during pregnancy were grouped according to the county of residence on the Medicaid eligibility file at time of pregnancy. The majority of counties (68 out of 92) have 30% or more women attesting to smoking during pregnancy in 2007. The overall percentage of women on Medicaid who smoked during pregnancy was 27 percent, compared to 17.3% for all pregnant women in Indiana. The percentage of women smoking during pregnancy in 2007 for each county is represented in the following Figure.

Figure 10
Women Enrolled in Medicaid who Indicated Smoking During Pregnancy
(Singleton Births)
Indiana: 2007

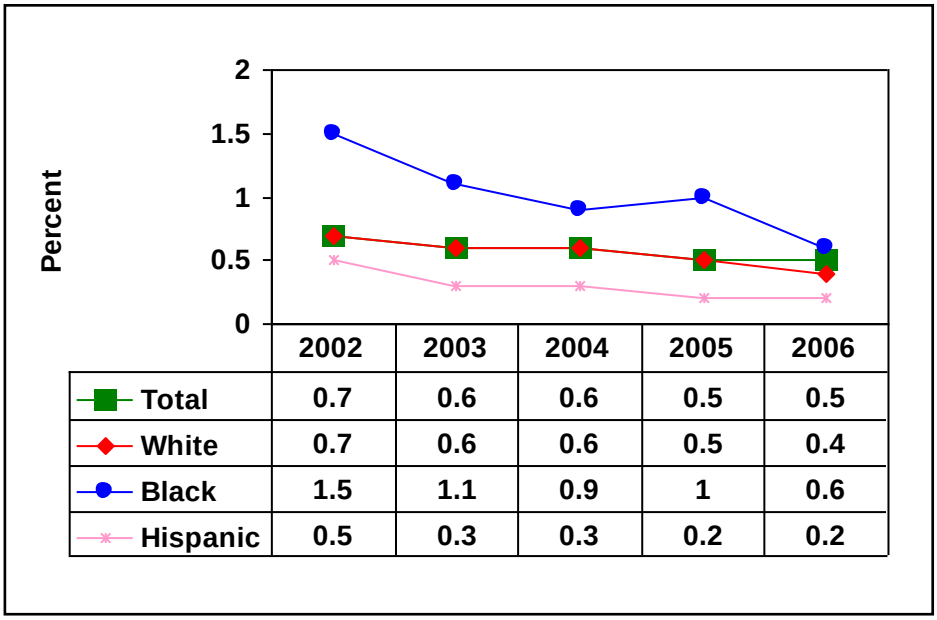


Source: Indiana State Department of Health/Office of Medicaid Policy & Planning--- combined birth record data; ISDH Maternal and Child Epidemiology Reports:. statewide average for smoking during pregnancy

Ten counties in Indiana had rates of over 40 percent of women on Medicaid who smoked during pregnancy in 2007. The range for these counties was between 41 and 48 percent. Smoking while pregnant is self-reported on birth certificates in Indiana.

Drinking--According to the United States Surgeon General, no amount of alcohol during pregnancy is safe for the fetus. Since 2002, the percentage of pregnant women in Indiana who report drinking during pregnancy on the birth certificate has decreased from .7% to .4% in 2006. The percentages are the same for the white population (.7% to .4%) between 2002 and 2006. The black population is consistently the highest, although it dropped between 2002 and 2006, from 1.5% to .6%. The Hispanic group is the lowest, dropping from .5% in 2002 to .2 % in 2006. The number of mothers who drink during pregnancy is probably higher than the self reported numbers on the birth certificate. Figure 11 demonstrates the steady decrease among women who reported drinking during pregnancy across all races and ethnicities.

Figure 11
Percent Drinking During Pregnancy by Race and Ethnicity
Indiana: 2002-2006



	2002	2003	2004	2005	2006
Total	0.7	0.6	0.6	0.5	0.5
White	0.7	0.6	0.6	0.5	0.4
Black	1.5	1.1	0.9	1	0.6
Hispanic	0.5	0.3	0.3	0.2	0.2

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [date].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team.

Breastfeeding -- Breastfeeding provides optimal nutrition for infants along with superior immune system, physical and cognitive development. Human milk is easily digested and contains antibodies that protect infants from bacterial, viral and other infections. In mothers, breastfeeding decreases the risk of postpartum hemorrhage and provides many positive physical and emotional benefits. The Healthy People 2010 have many breastfeeding objectives. In 2006, Indiana did not meet the 5 major Healthy People 2010 breastfeeding objectives and also fell below the national average. To see the Healthy People 2010 Objectives and how Indiana compares to them and the national average, see table 2 below. The data come from the National Immunization Survey, done by the CDC, Department of Health and Human Services.

Table 2
2006 Indiana and United States Breastfeeding Percentages
Compared to Healthy People 2010 Objectives

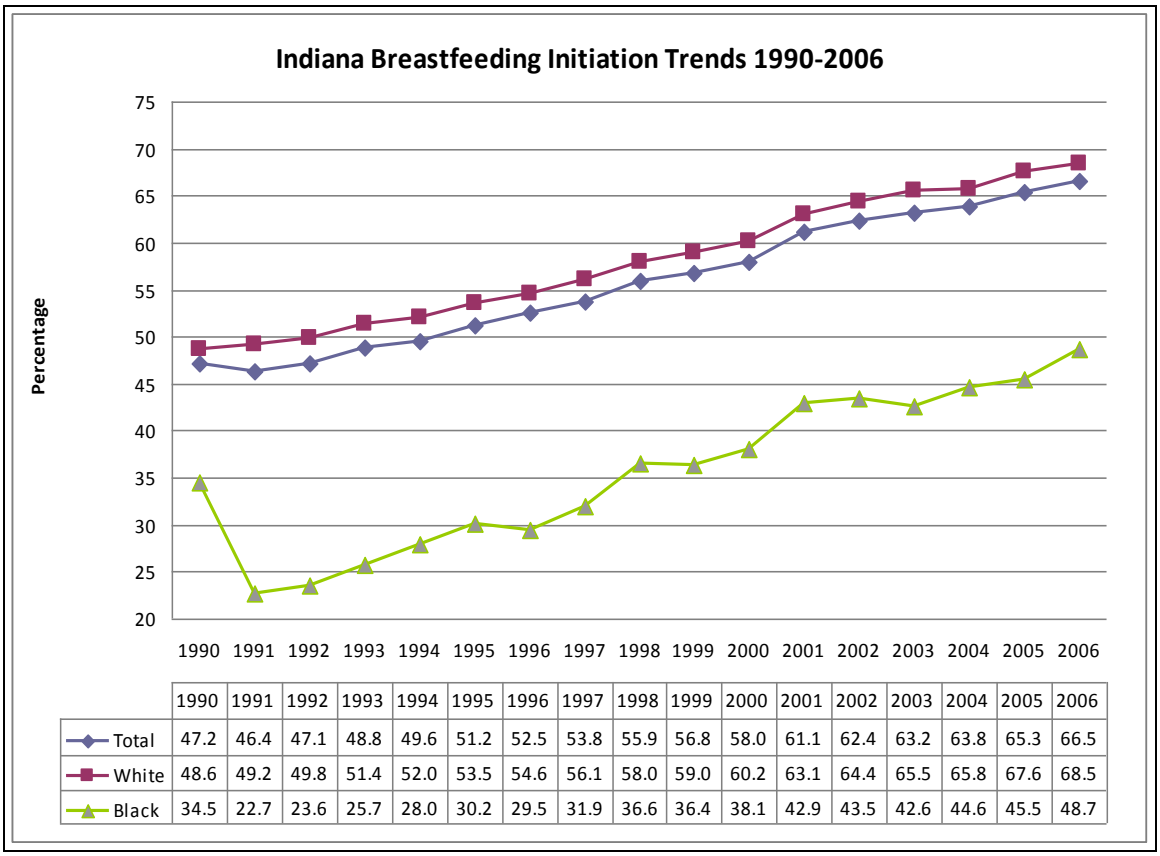
***Health People 2010* Objectives**	**Indiana**	**United States**
75% of mothers initiating breastfeeding	71.1%	73.9%
50% of mothers breastfeeding their infant at 6 months of age	37.2%	43.4%
25% of mothers breastfeeding their infant at 12 months of age	18.9%	22.7%
40% of mothers exclusively breastfeeding their infant through 3 months of age	28.9%	33.1%
17% of mothers exclusively breastfeeding their infant through 6 months of age	10.6%	13.6%

***Indiana Birth Certificate Data are 66.5%**
Source: Breastfeeding Report Card, United States 2009: Outcome Indicators based on the United States National Immunization Survey, 2006 Births, Centers for Disease Control and Prevention, Department of Health and Human Services. Available at http://www.cdc.gov/breastfeeding/data/report_card2.htm.

The percentage initiating breastfeeding reported by the CDC is higher than birth certificate data because the measure used is "ever breastfed" while birth certificate data report breastfeeding on discharge from hospital. The two criteria are similar but there are subtle differences; for instance, if a mother breastfeeds her baby on the first day after birth, then quits, she would be counted in the "ever breastfed" column. However, because she had switched to formula prior to discharge, she would not be counted in the birth certificate data as "breastfeeding at discharge". Consequently, birth certificate data, a truer reflection of breastfeeding initiation, are generally lower than numbers reported by the CDC.

Indiana has shown a steady increase in the rate of mothers who ever breastfed their infants between 1990 and 2007. In 1990, less than half of new mothers (47.2%) breastfed their infants. In 2007, the rate grew to 67.1 percent. The rate of black mothers who ever breastfed their infants grew from 34.5% in 1990 to 47.6% in 2007. The Healthy People 2010 goal for breastfeeding initiation is 75 percent. The following graph shows the steady increase in the percentage of mothers who initiated breastfeeding between 1990 and 2006 by race, from birth certificate data.

Figure 12
Percent Mothers who Initiated Breastfeeding by Race
Indiana: 1990-2006



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total	47.2	46.4	47.1	48.8	49.6	51.2	52.5	53.8	55.9	56.8	58.0	61.1	62.4	63.2	63.8	65.3	66.5
White	48.6	49.2	49.8	51.4	52.0	53.5	54.6	56.1	58.0	59.0	60.2	63.1	64.4	65.5	65.8	67.6	68.5
Black	34.5	22.7	23.6	25.7	28.0	30.2	29.5	31.9	36.6	36.4	38.1	42.9	43.5	42.6	44.6	45.5	48.7

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [November 20, 2009]-Birth Certificate Data.
Original Data from: Indiana State Department of Health, PHPC, ERC, Data Analysis Team.

Summary – Issues that impact pregnant women and women of childbearing age include diabetes, smoking, short inter-pregnancy intervals, late entrance into prenatal care, and breastfeeding initiation and duration. For diabetes, there was a statistically significant increase in rates for 2008 over the 2004-2005 time frame. Prevalence of gestational diabetes has fluctuated over the 2006-08 time period but both blacks and Hispanics have seen an increase during 2008. This is a concern since having gestational diabetes increases the risk of developing diabetes later in life. Smoking during pregnancy also remains a challenge. Although rates had decreased between 2003 and 2006, there was a subsequent increase in 2007. Rates of smoking for whites remains greater than for blacks or Hispanics. The population with the highest prevalence of smoking during pregnancy is the Medicaid population. Rates in this population are as high as 30% in some counties, compared to the statewide average of 18.5% (2007 data).

Short inter-pregnancy intervals (where the interpregnancy period is less than twelve months) while relatively stable during the 2004-2006 time period remains above the national average. This ultimately impacts both the infants and mother's health. Entrance into prenatal care is another issue impacting both the mother's and babies' health. During the period of 2003 through

2007, the percent of infants born to mothers receiving care during the first trimester declined slightly. In addition, black and Hispanic rates were lower than that for whites. The initiation of breastfeeding by mothers following delivery has continued to increase. However, the percentages of women who continue with exclusive breastfeeding at three and six months remain well below the Healthy People 2010 objectives. Smoking during pregnancy, short-interval pregnancy, late entrance into prenatal care, and breastfeeding will all be the focus of the state performance measures over the next five year period.

(2) Infants

Prevention and early detection of problems in infants reduce the financial, personal and emotional burdens associated with adverse outcomes. Areas critical in this needs assessment include birth rate, newborn screening, birth defects, prematurity, low and very low birth weights, infant and fetal mortality issues. The rate of births has increased in Indiana since the last assessment. Of these births, 99.95 % were screened for genetic conditions and 98% received a hearing screening. Prematurity and low/very low birth weights put infants at risk for medical complications and/or death. The analysis of prematurity, low/very low birth weights, infant and fetal mortality rates will provide direction and goals for the next years.

Births--In 2006, 89,404 infants were born to Indiana residents. The number of live births represents a 2.7 percent increase from 2005 (87,088). Of the 89,404 births to Indiana residents in 2006, 86,467 were single births, 2,823 were twins, 110 were triplets, and 4 were quadruplets. During 2006, 45,679 (51.1%) of the infants were male and 43,725 (48.9%) were female, resulting in a sex ratio of 1,045 males per every 1,000 females. In 2006, there were 9,726 live births to mothers under 20 years of age–10.9 percent of the total number of live births. Of these, 7,618 were born to white women under age 20 (9.9% of the white births) and 2,038 were born to black women under age 20 (19.6% of the black births). The age-specific birth rate for women ages 15-19 was slightly higher in 2006 (43.8) than in 2005 (43.2). Slightly over two fifths (41.2%) of all live births in Indiana in 2006 were to unmarried parents. Significantly more black mothers (78.2%) than white mothers (36.8%) were not married to the infant's father at the time of the birth.

The number of births to Indiana residents has increased between 1996 and 2006 from 83,157 to 89,404 births to Indiana residents. Every year in this trend the males have had a higher percentage of the births. In addition, the percentage of Hispanic births in Indiana has increased over the past decade. To see the births to Indiana residents from 1996 to 2006, please refer to Table 3 below.

Table 3
Number and Percent of Live Births by Sex of Infant, Race and Ethnicity, Indiana: 1997-2007

Year	Number (All Races)			Percent by Race/Ethnicity			
	Total	Male	Female	White	Black	Hispanic	Other
2007	89,719	45,936	43,782	86.0	11.5	9.8	2.5
2006	89,404	45,679	43,725	86.2	11.6	9.5	2.1
2005	87,088	44,698	42,388	86.7	11.3	9.2	2.1
2004	87,125	44,861	42,264	86.9	11	8.3	2.1
2003	86,382	44,371	42,007	87.3	10.8	7.8	1.9
2002	84,839	43,237	41,599	87.2	10.9	7.2	1.9
2001	86,122	44,155	41,964	87.2	11.1	6.8	1.8
2000	87,697	45,111	42,584	87.5	10.7	6.2	1.7
1999	85,489	43,794	41,694	87.5	10.8	N/A	1.7
1998	85,055	43,316	41,735	87.4	10.8	N/A	1.7
1997	83,385	42,385	40,998	88.0	10.5	N/A	1.6

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [March 20, 2009].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team.

Genomics/Newborn Screening-- One of the goals of the Genomics/Newborn Screening (NBS) Program is to ensure that all infants born in Indiana are screened for designated disorders. Other goals are to monitor and maintain a centralized program to provide diagnosis, follow-up, management, family genetic counseling and support, including equipment, supplies, formula and other materials.

The main objectives of the program are to ensure that all infants born in Indiana receive state-mandated screening for genetic disorders and follow up to ensure that infants who are confirmed to have one of the conditions included on the newborn screen receive appropriate follow-up care and treatment. Appropriate genetic counseling for parents and the promotion of public awareness concerning genetic conditions are additional goals.

In 2007, the program was responsible for 89,857 babies (99.4% of births) receiving an initial screen. Of those identified with a genetic condition, 100% received referrals and appropriate treatment. The results from these heel sticks are shown in the following Table.

Table 4
Results of Newborn Screening Heel Stick Testing
Indiana: 2007

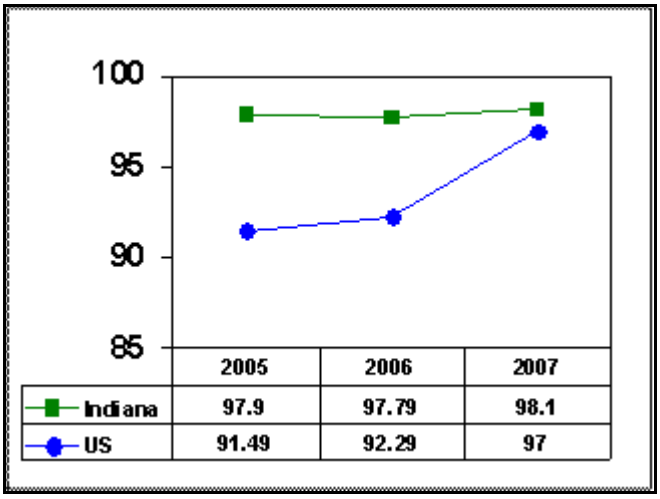
Condition	Number of Infants
Galactosemia	81
Congenital Hypothyroidism	45
Hemoglobinopathy	26
Phenylketonuria	8
Congenital Adrenal Hyperplasia	8
MCAD (Medium Chain Acyl-Coenzyme A Dehydrogenase Deficiency)	6

Hearing Loss--The Indiana Early Hearing Detection and Intervention (EHDI) project is administered through the Newborn Screening program at the Indiana State Department of Health. A primary purpose of the EHDI system in Indiana is to positively impact the lives of children and their families through early identification of hearing loss and subsequent follow-up. Indiana EHDI is focused on program improvements that will allow for consistent outcomes. These include a screening at one month, a diagnostic evaluation at three months, and appropriate treatment by 6 months.

Newborn hearing screening was mandated by law in Indiana in 1999 and became effective Summer 2000. The Newborn Screening Law states that, "every infant shall be given a physiologic hearing screening examination at the earliest feasible time for the detection of hearing impairments". The only authorized reason for refusal of newborn hearing screening is for religious reasons. Audiologists are required by law to report the results of follow-up testing to EHDI. Results are reported via EHDI's Diagnostic Audiology Evaluation (DAE) form. As of October 2006, audiologists are also required to report to the Indiana Birth Defects and Problems Registry (IBDPR) any child, birth to age three, who is identified with a hearing loss.

Indiana screened approximately 98% of the more than 89,000 occurrent births in 2007. Of those children, 1,743 did not pass the final (second) screening and were referred for a diagnostic audiology evaluation. Of those children who did not pass the final screen, the hearing status of 46.6% of the group was confirmed before age 3 months and 364 (20.9%) were lost to follow-up/documentation. Of those not passing the final screen, 7.5% were found to have permanent hearing loss. Nearly 80% of those identified with permanent hearing loss were enrolled in early intervention services. In addition to the 132 babies born in 2007 identified with a permanent hearing loss, 53 babies born prior to 2007 were also diagnosed with hearing loss during that calendar year. Indiana's rate of early hearing loss screening consistently exceeds the national average.

Figure 13
Percent Screened for Hearing Loss,
Indiana and United States: 2005-2007



Source: CDC 2007 EHDI Hearing Screening and Follow-Up Survey (retrieved October 20, 2009 from http://www.cdc.gov/ncbddd/ehdi/data.htm)

Birth Defects--The Indiana Birth Defects and Problems Registry (IBDPR) is a population-based surveillance system that seeks to promote fetal, infant, and child health via the prevention of birth defects and childhood developmental disabilities. Enhancing the quality of life of affected Indiana residents is a further goal. Data from the IBDPR are used to identify the frequency of birth defects in Indiana, detect trends/clusters of birth defects for further study, develop education and prevention programs, and establish efficient referral systems that provide special services for children identified with birth defects, as well as their families.

The Indiana Birth Defects and Problems Registry is considered to be a hybrid "active/passive" system. Initial case ascertainment occurs via the electronic submission of hospital discharge data (HDD) containing pre-defined ICD-9-CM codes that identify birth defects and problems. In the early stages of program development, it was determined that up to 25% of the HDD was invalid. Therefore, the program protocol now includes chart audits of the 44 CDC-targeted conditions. This adds an "active" component to the system and ensures the data submitted to the CDC are as valid as possible. This additional validation also enables the appropriate information to be sent to families of children confirmed with at least one birth defect.

The following 10 conditions in Table 5 were the most prevalent reported conditions to the IBDPR for infants and children born in the year 2005.

Table 5
Most Prevalent Conditions Reported in the IBDPR
Indiana: 2005

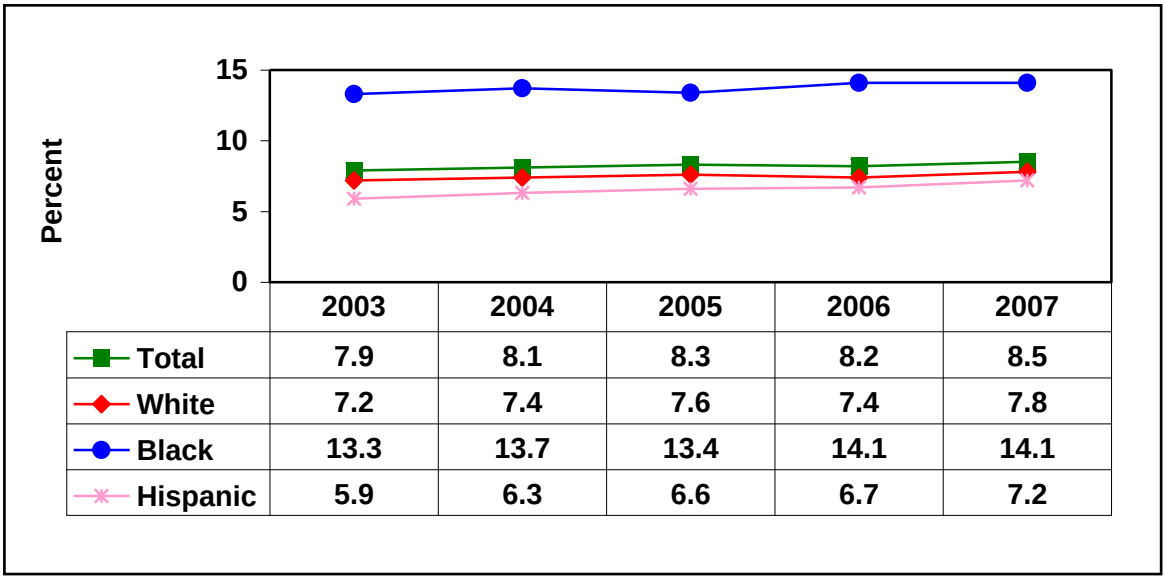
Rank	Condition	Number of Cases
1	Atrial Septal Defect	330
2	Ventricular Septal Defect	266
3	Hypospadias and Epispadius	228
4	Obstructive genitourinary defect	168
5	Pyloric Stenosis	166
6	Patent Ductus arteriosis	143
7	Down Syndrome	82
8	Cleft lip with and without cleft palate	60
9	Pulmonary Valve Atresia and stenosis	58
10	Hydrocephalus without Spina Bifida	55

Low Birth Weight--Indiana has shown an increase in low birth weight (infants born less than 2500 grams) over the past 5 years. In 2003, the percentage of babies born low birth weight was 7.9%, but then steadily increased up to 8.3% in 2005 before increasing more to 8.5% in 2007. The Healthy People 2010 goal for low birth weight is 5.0% for all births. The current trend of low birth weight shows that Indiana will not meet this goal.

The white population shows the same trend as the total, increasing from 7.2% in 2003 up to 7.6% in 2005 before increasing more to 7.8% in 2007. At this rate, Indiana will not meet the goal of 5%. The black low birth weight percentages have steadily increased every year from 13.3% in 2003 up to 14.4% in 2007. The Hispanic rate also has steadily increased from 5.9% in 2003 slightly up to 7.2% in 2007. Neither the black or Hispanic population will meet the Healthy People 2010 goal of 5% at these trends.

In the prior years, 1999 through 2002, there was a slight decrease in the total and white low birth weight percentages, and the black stayed constant. Those trends have reversed between 2003 and 2007. The following Figure demonstrates the low birth weight trends between 2003 and 2007.

Figure 14
Percent of Infants Born with Low Birth Weight by Race and Ethnicity
Indiana: 2003-2007

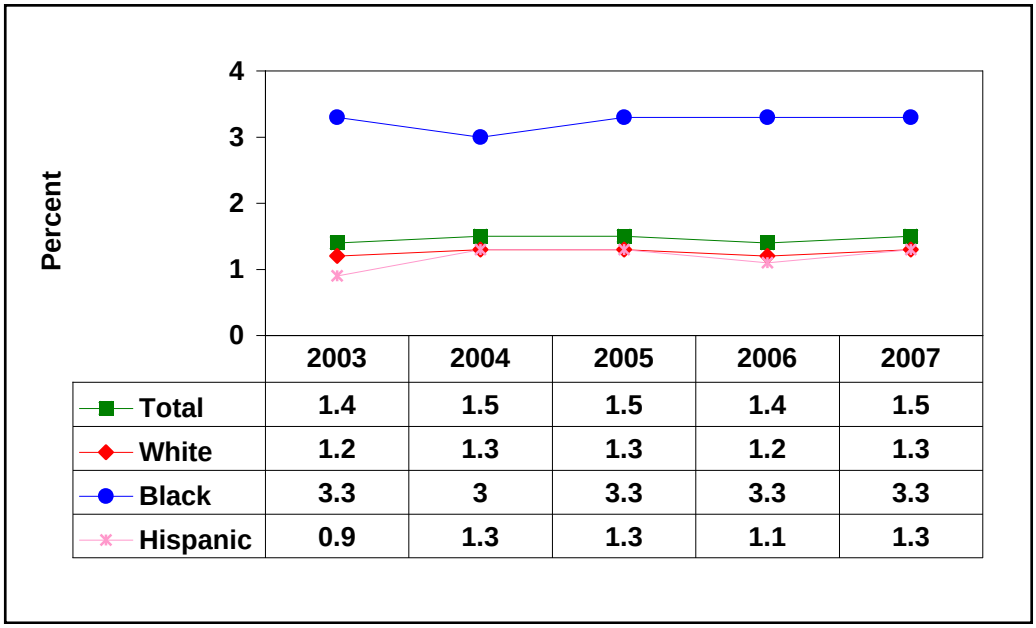


	2003	2004	2005	2006	2007
Total	7.9	8.1	8.3	8.2	8.5
White	7.2	7.4	7.6	7.4	7.8
Black	13.3	13.7	13.4	14.1	14.1
Hispanic	5.9	6.3	6.6	6.7	7.2

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, **[November 21, 2009]. Original Data From**: Indiana State Department of Health, PHPC, ERC, Data Analysis Team.

Very Low Birth Weight--The Healthy People 2010 goal for very low birth weight (below 1500 grams) is 0.9%. Indiana's total percentage stayed steady between 2002 and 2006 at 1.4% of infants being born at very low birth weight, before increasing to 1.5% in 2007. At this rate, Indiana will not meet the 2010 Healthy People goal. Both the white (1.4% in 2002 and 2006) and the Hispanic (1.2% in 2002 to 1.1% in 2006) also stayed steady**,** until 2007, (white 1.3%, Hispanic 1.3%.) The black very low birth weight percentage did increase significantly between 2002 and 2007 from 2.6% to 3.3%. The Hispanic and white populations have a chance of meeting the 2010 goal of 0.9%; however, this is not likely. The black population will not meet the 2010 goal. The previous years, 1999 through 2002, showed a slight decrease in very low birth weight across the board in total and by race and ethnicity. Figure 2 demonstrates that trend has reversed between 2002 and 2007.

Figure 16
Percent of Infants with Born Very Low Birth Weight by Race and Ethnicity
Indiana: 2003-2007

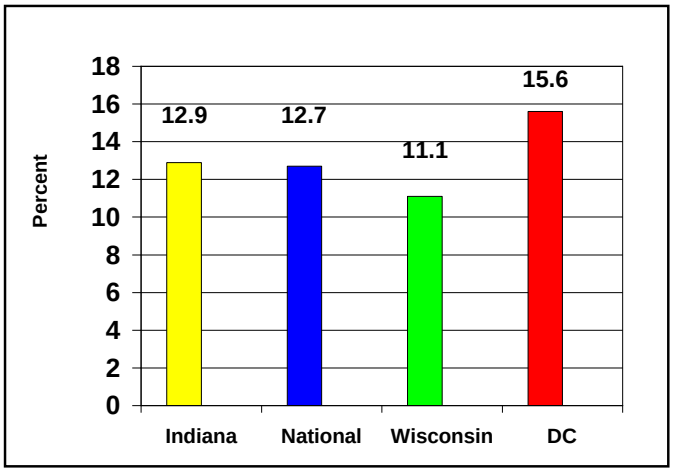


	2003	2004	2005	2006	2007
Total	1.4	1.5	1.5	1.4	1.5
White	1.2	1.3	1.3	1.2	1.3
Black	3.3	3	3.3	3.3	3.3
Hispanic	0.9	1.3	1.3	1.1	1.3

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [March 20, 2009].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team.

Prematurity--In the United States each year, about 1 out of every 8 children are born prematurely. Premature birth (37 weeks and under) is defined as birth prior to at least three weeks before full term birth (40 weeks). Prematurity is the leading cause of death among newborn babies. Being born premature is also a serious health risk for a baby. Some babies will require special care and spend weeks or months hospitalized in a neonatal intensive care unit (NICU). Those who survive may face lifelong problems such as intellectual disabilities, cerebral palsy, breathing and respiratory problems, vision and hearing loss, and feeding and digestive problems. (CDC National Prematurity Awareness, http://www.cdc.gov/features/prematurebirth/) Indiana has consistently been higher than the United States in premature births over the past decade, but in 2007 Indiana closed the gap. To see a comparison of Indiana to the US and other states, please refer to the following Figure 17.

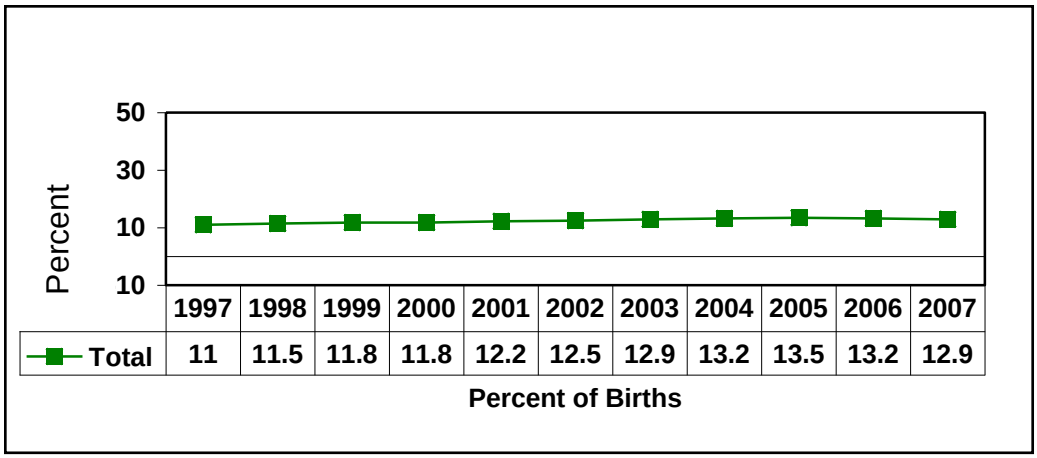
Figure 17
Percent Preterm Births State Comparison: 2007



Source: Centers for Disease Control and Prevention. National Center for Health Statistics. Vital Statistics: http://www.cdc.gov/nchs/vitalstats.htm

Indiana has slightly increased in percentage of premature births between 1997 (11%) up until 2005 (13.5%), before starting to decrease in 2006 (13.2%) and 2007 (12.9%).

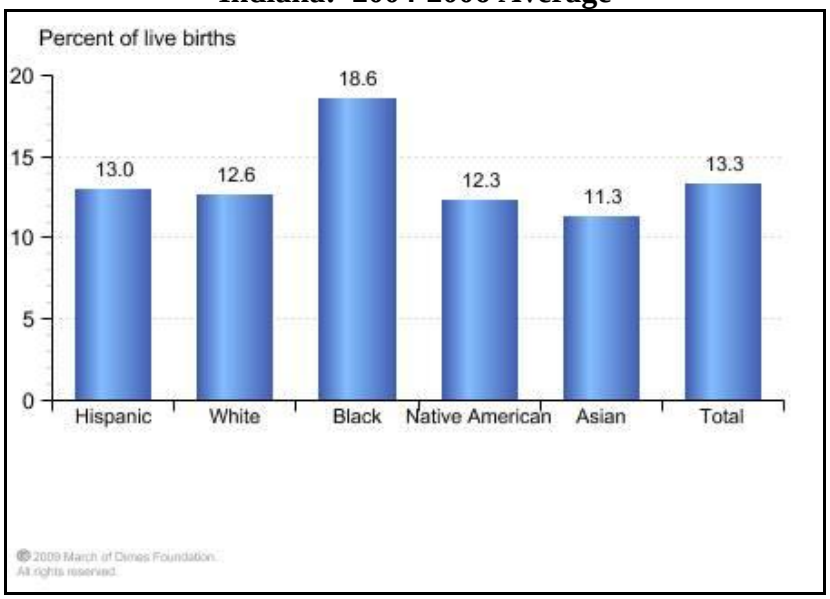
Figure 18
Infant Preterm Birth Percentage
Indiana: 1997-2007



Source: National Center for Health Statistics, final natality data (retrieved November 6, 2008, from www.marchofdimes.com/peristats)

The black premature birth rate in Indiana between 2000 and 2005 has consistently increased, and is at a much higher percentage than the total premature percentage. From 2000 through 2002, the black premature birth percentage was 18.1, before increasing to 18.5 between 2003 through 2005.

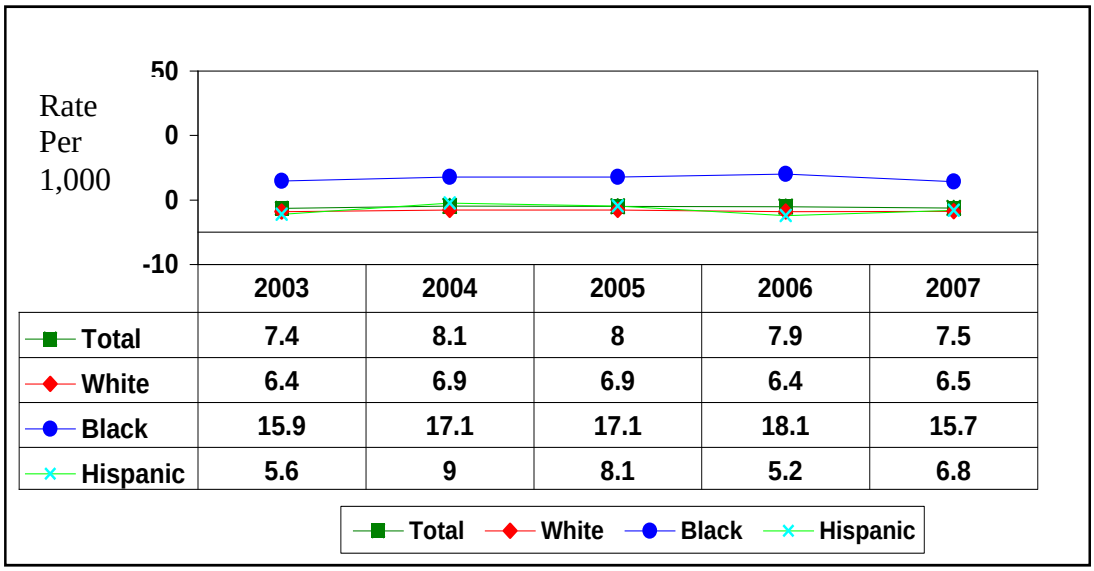
Figure 19
Percent of Premature Births by Race and Ethnicity
Indiana: 2004-2006 Average



Source: • National Center for Health Statistics, final natality data (Retrieved June 29, 2010, from www.marchofdimes.com/peristats.

Infant Mortality--The Healthy People 2010 goal for overall infant mortality rate (IMR) is 4.5 per 1000 live births. The IMR per 1000 in Indiana showed an increase in 2004 to 8.1 from 2003 (7.4) and stayed steady through 2006. In 2007 the IMR decreased to 7.5 in Indiana. The white IMR in Indiana increased between 2003 and 2005 moving from 6.4 up to 6.9, and then decreased back down to 6.5 in 2007. The black IMR in Indiana constantly increased every year, from 15.9 in 2003 to 18.1 in 2006, before decreasing down to 15.7 in 2007. The Hispanic IMR in Indiana fluctuated every year between 2003 and 2007, peaking at 9.0 in 2004 and dropping to as low as 5.2 in 2006, but then increasing to 6.8 in 2007. To meet the Healthy People 2010 goals, all IMRs should be below 4.5 per 1000 live births. At the current rate, Indiana will not meet the Healthy People 2010 Goal. The following Figure 20 shows the IMR per 1000 by race and ethnicity in Indiana between 2003 and 2007.

Figure 20
Statewide Infant Mortality Rate by Race and Ethnicity
Indiana: 2003-2007 (Rate per 1000 Births)

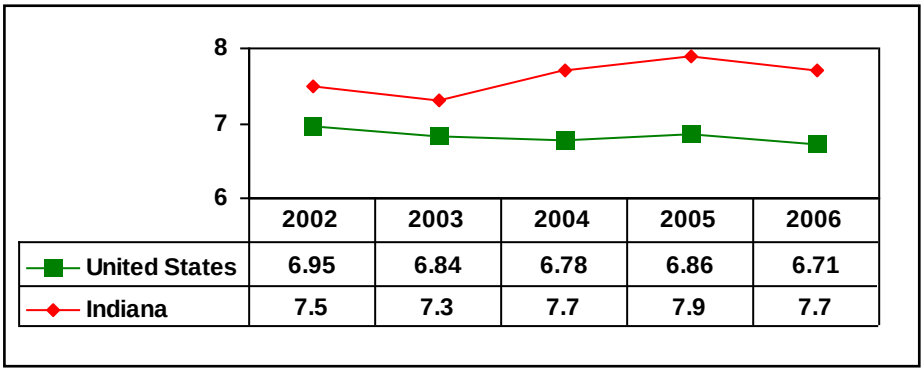


	2003	2004	2005	2006	2007
Total	7.4	8.1	8	7.9	7.5
White	6.4	6.9	6.9	6.4	6.5
Black	15.9	17.1	17.1	18.1	15.7
Hispanic	5.6	9	8.1	5.2	6.8

Source: ISDH, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [February 4, 2010].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team.

The United States Infant Mortality Rate (IMR) slightly declined in 2006, from 6.86 to 6.71 infant deaths per 1000 live births. This number is still much higher than the goal of 4.5 per 1000 live births. Indiana in comparison is much higher then the United States in each year from 2002 through 2006 in infant mortality rate. To meet the Healthy People 2010 goals, all infant mortality rates should be below 4.5 per 1000 live births. At the current rate, Indiana will not meet the Healthy People 2010 goal. Figure 21 demonstrates Indiana's IMR compared to the United States.

Figure 21
Infant Mortality Rate
Indiana and United States: 2002-2006
(Rate per 1000 Births)



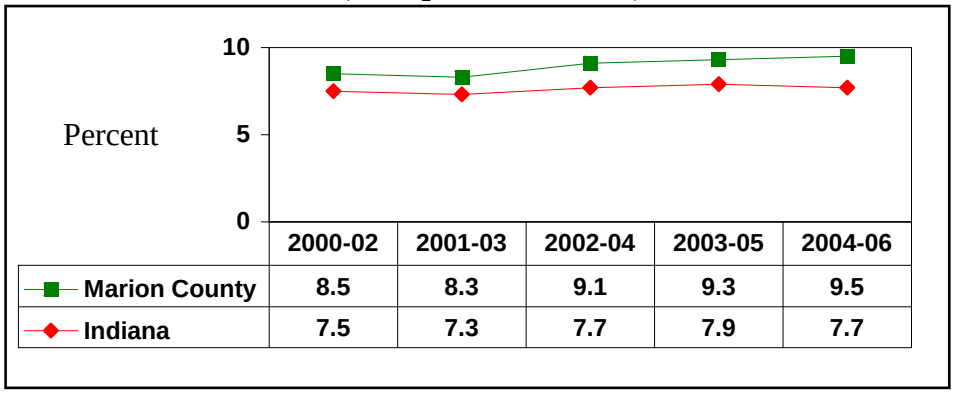
	2002	2003	2004	2005	2006
United States	6.95	6.84	6.78	6.86	6.71
Indiana	7.5	7.3	7.7	7.9	7.7

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [March 20, 2009]. **Original Data From**: Indiana State Department of Health, PHPC, ERC, Data Analysis Team.

The Indiana State Department of Health also analyzed the infant mortality rate by linking birth and death files between the years 1990 and 2006. The sample size is smaller compared to vital statistics because infants that could not be linked between birth and death were excluded from the study. In each year, the linked files show a smaller rate of infant death compared to the vital statistics per 1000 probably due to exclusion of some infants. To meet the Healthy People 2010 goals, all infant mortality rates should be below 4.5 per 1000 live births. At the current rate, Indiana will not meet the Healthy People 2010 goal.

Marion and Lake Counties were analyzed using the linked files because they are the two largest populated counties in Indiana. From the 2000-2006, infant mortality rates in Marion County have been higher than the rates in Indiana, whereas the race-specific rates were almost the same in Marion County and in the State. This is mainly due to the fact that the proportion of blacks among live births is higher in Marion County (28.8% in 2006) than in the State (11.6% in 2006), and the overall IMR is significantly higher among blacks (16.3 in 2006 in Marion County) compared to whites (7.2 in 2006 in Marion County). Figure 22 demonstrates these trends in Marion County from 2000-2006 in IMR compared to the entire state of Indiana.

Figure 22
Infant Mortality Rates in Marion County Compared to Indiana
Three-year Moving Averages
Marion County, Indiana: 2000-2006
(Rate per 1000 Births)

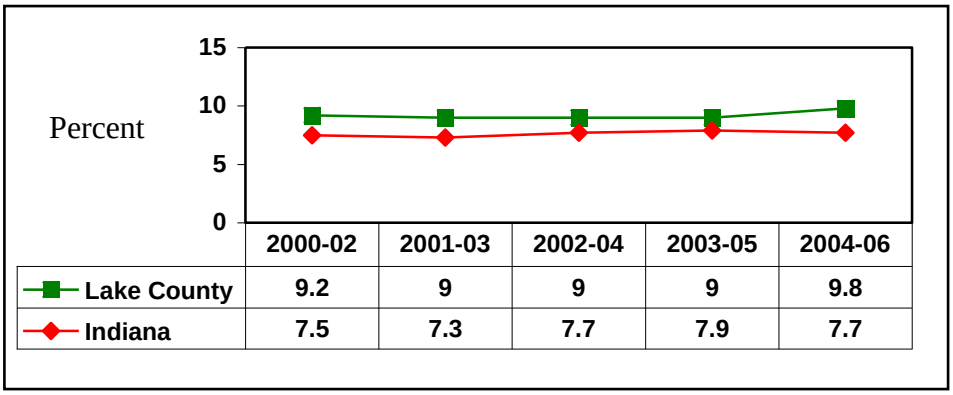


	2000-02	2001-03	2002-04	2003-05	2004-06
Marion County	8.5	8.3	9.1	9.3	9.5
Indiana	7.5	7.3	7.7	7.9	7.7

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [March 20, 2009]. **Original Data From**: Indiana State Department of Health, PHPC, ERC, Data Analysis Team. Report: Indiana Infant Mortality Report, 1990-2006, Statistics from the Period Linked Birth/Infant Death Data Set.

From 2000-2006 infant mortality rates for Lake County have been higher than the rates for Indiana, whereas the race-specific rates have been almost the same in Lake County and in the State. This is mainly due to both a higher proportion of black live births in Lake County (32.7% in 2006) than in the State (11.6% in 2006), and a significantly higher IMR among blacks (14.6 deaths per 1,000 live births in 2006 in Lake County) compared to whites (7.9 deaths per 1,000 live births in 2006 in Lake County). Figure 23 demonstrates the IMR trends in Lake County from 2000-2006 compared to the entire state of Indiana.

Figure 23
Infant Mortality Rates in Lake County Compared to Indiana
Three-year Moving Averages: Lake County, Indiana: 2000-2006
(Rate per 1000 Births)



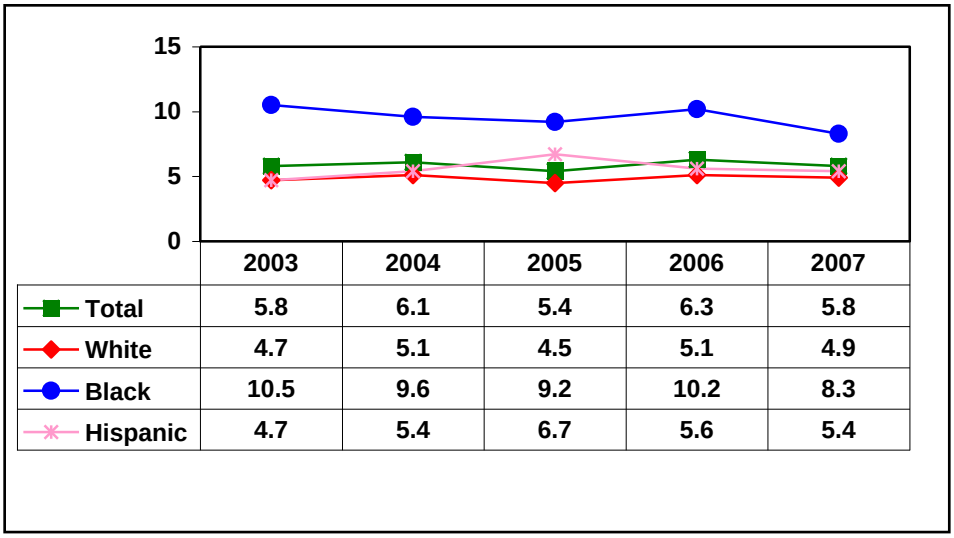
	2000-02	2001-03	2002-04	2003-05	2004-06
Lake County	9.2	9	9	9	9.8
Indiana	7.5	7.3	7.7	7.9	7.7

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [March 20, 2009]. **Original Data From**: Indiana State Department of Health, PHPC, ERC, Data Analysis Team; Report: Indiana Infant Mortality Report, 1990-2006, Statistics from the Period Linked Birth/Infant Death Data Set.

Fetal Death Rate--Fetal Deaths are defined as death prior to completed delivery of a fetus of 20 or more weeks gestation. The Healthy People 2010 goal for overall fetal death rate is 4.1 deaths per 1000. Over the past 5 years Indiana's overall fetal death rate has fluctuated each year. In 2003, the rate was 5.8 per 1000, before increasing up to 6.3 in 2006, before dropping down to 5.8 in 2007.

The same trend can be seen among the white population for fetal death rate. In 2003 the rate was 4.7, before increasing to 5.1 in 2006, then decreasing to 4.9 in 2007. The black fetal death rate declined from 2003 (10.5) to 2005 (9.2), before making a large jump back up to 10.2 in 2006. In 2007 this rate decreased to 8.3, making it the lowest rate of the 5 years. The Hispanic population fetal death rate has decreased over the past 5 years. In 2002 the rate was 6.6, before dropping as low as 4.7 in 2003, and reaching its high in 2005 (6.7). In 2007 the Hispanic fetal death rate was back down to 5.4 per 1000. At the current trend Indiana will not meet the Healthy People 2010 goal of 4.1 deaths per 1000. Figure 24 shows the fetal death rate per 1000 by race and ethnicity in Indiana between 2003 and 2007.

Figure 24
Statewide Fetal Death Rate by Race and Ethnicity
Indiana: 2003-2007
(Rate per 1000 Births)



	2003	2004	2005	2006	2007
Total	5.8	6.1	5.4	6.3	5.8
White	4.7	5.1	4.5	5.1	4.9
Black	10.5	9.6	9.2	10.2	8.3
Hispanic	4.7	5.4	6.7	5.6	5.4

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [February 4, 2010].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team

Sudden Unexpected Infant Deaths (SUIDs) and Sudden Infant Death Syndrome (SIDS)--
The purpose of this analysis is to assess trends in various causes of sudden unexpected infant deaths (SUIDs) including sudden infant death syndrome (SIDS), other SUIDs (accidental suffocation and strangulation, intent unknown suffocation, neglect, abandonment, and maltreatment syndromes), and deaths of unknown cause. This analysis was conducted in a specific report by an ISDH Epidemiologist using Indiana mortality data between 1990 and 2006.

Yearly infant mortality rates were studied for SIDS, other SUIDs, and unknown cause using the Indiana mortality data for all infant deaths between 1990 and 2006. Years were combined into 1990-1994, 1995-1998, 1999-2002, and 2003-2006 to yield more stable rates. The two periods of 1990-1994 and 1995-1998 represent the years prior to and immediately after launching "Back to Sleep" campaign. The 1999-2002 data are the period of years immediately after changing to the ICD-10 coding system. The 2003-2006 period represents the most recent data available.

Between 1990 and 1998, as SIDS rates declined in Indiana, so did rates due to combined SIDS, other SUIDs, and unknown cause. After 1998, SIDS rates continued to decline. However, the combined rates of SIDS, other SUIDs, and unknown cause did not decline. This pattern was also reported at the national level.

During the 1995-1998 and 1999-2002 periods, the SIDS rate in Indiana declined by 39 percent whereas rates for unknown cause and accidental suffocation increased by 67 and 106 percents, respectively. Recent studies on national data produced similar results and provided evidence that most of the decline in SIDS and increase in accidental suffocation rates after 1998 is due to shifts in reporting or classification of deaths from SIDS to accidental suffocation and to unknown

cause rather than a true change. This shift can partly be explained by change to the ICD-10 coding system, by improved death scene investigation, and/or by higher awareness of investigators.

According to the CDC Wonder on-line database, between 1990-1994 and 1999-2004, SIDS rate declined by 62 percent in Indiana (to 54.3 deaths per 100,000 live births) and by 51 percent nationwide (to 59.4) resulting in Indiana's national ranking of SIDS improving from 20th to 35th. During the same time, accidental suffocation rate tripled in Indiana (to 34.6) and doubled in the US (to 13.5), making Indiana the second worst state among those with stable rates. However, Indiana's rate of combined deaths due to SIDS, other SUIDs, and unknown cause was above the national average by 14 percent in 1990-1994 and by only 11 percent in 1999-2004 with a relatively stable national ranking of 22nd and 20th, respectively.

It is recommended that until an agreement on a more standardized approach to certifying SIDS and other SUIDs can be attained, monitoring progress on reducing sudden infant deaths should include observing trends in the broad categories that encompasses SIDS as well as other SUIDs and unknown cause.

Injuries--Infants (less than one year of age) are at greater risk for many injuries. With limited cognitive ability and physical coordination, infants are less capable of identifying and avoiding unsafe environments. Babies are also dependent on others for everything and cannot express themselves well verbally. Therefore, they may be at higher risk for abuse or neglect.

From 2003 to 2006 in Indiana, 227 infants died due to unintentional and intentional injuries. More than two-thirds of all injury deaths (68.3% or 155/227) were due to suffocation. Of the suffocation deaths, 89.0% (138/155) were unintentional. The rate of injury death for black infants during 2003-2006 was 175.7 per 100,000, which is more than three times higher compared to white infants (53.4 per 100,000). The primary cause of hospital admissions for infants was falls. Injuries due to falls accounted for 25.6% of all hospitalizations (139/543). The Indiana data corroborate what is seen nationally.

Table 6
Five Leading Causes of Injury Deaths for Infants
Indiana: 2003-2006

Cause*	Number	Percent**
Unintentional Suffocation	138	60.8
Undetermined Suffocation	11	4.8
Unintentional Motor Vehicle, Overall	10	4.4
Unintentional Fire/Burn	8	3.5
Unintentional Drowning*	6	2.6

*Also 6 deaths for Assault Suffocation and Assault by/Against
**All percents out of total number of injury deaths
Source: Original Data from Indiana State Department of Health, Epidemiology Resource Center, Data Analysis Team. Chart produced by Injury Prevention Program
*Also 6 deaths for Assault Suffocation and Assault by/Against

Summary – Indiana has experienced a steady increase in birth rate from 1997 to 2007. Births rates for whites have declined slightly. However, the birth rates for blacks and Hispanics have increased over this time period. Of these births, 99.4% are screened for genetic disorders and 98% receive newborn hearing screening. Indiana still has several issues impacting newborn and infant health. These include: low/very low birth weight, prematurity, and infant mortality. Although the rate of very low birth weight babies has remained relatively stable between 2003 and 2007, the rate of low birth weight babies has increased in all ethnicities (white, black, Hispanic) over the same time period. The overall percentage of premature births has declined in 2006 and 2007. However, the black premature rate continues to increase. Infant mortality rates remain above the national average with black rate more than twice the rate of whites. Infant deaths due to sudden infant death syndrome (SIDS) have declined in recent years. However, infant deaths due to sudden unexpected infant death (SUIDS) have not. These issues pertaining to infant health will be addressed in the state performance measures for the next five year period.

(3) Children and Adolescents

Issues impacting children and adolescents range from those strictly found in children to problems also found in adults. This needs assessment focused on the following areas: immunization, overweight and obesity, asthma, oral health, iron deficiency, lead poisoning, injuries, sexually transmitted infections (STIs), teen pregnancy, drinking and tobacco use.

Immunizations-- On November 1st of each year, the Indiana State Department of Health Immunization program collects immunization data from schools across Indiana. In the 2006-07 school year, data were collected from 1833 schools in Indiana. Data collection included information on 255,346 kindergarten, first grade, and sixth grade students. This covered over 85% of the schools in Indiana. Ninety-six percent of students enrolled at reporting schools completed the immunizations necessary according to state requirements. There was an increase of five percentage points from the previous assessment year.

Due to concerns of data validity with the reported immunization rates required by state law, the ISDH Immunization Program also conducts an annual validation survey. This random survey and sampling is conducted according to the procedures developed by the Assessment Branch of the National Immunization Program at the Centers for Disease Control and Prevention. A total sample size of 136 schools was selected for validation. In the 136 schools selected, 36 validations included only kindergarten, 16 included only first grade, 33 included only sixth grade. Fifty-one percent of the validations included multiple grades.

Overall, immunization rates increased 1.5 percentage points between the submission of the self-reported annual school assessment and the validation of immunization records in the selected schools. The immunization rate for kindergarten showed the most improvement between the self-reported assessment and the validation survey, increasing 4.6 percentage points. First grade immunization rates decreased 0.6 percentage points with the validation of records, while the immunization rate for sixth grade increased 0.6 percentage points within the same time interval. The following table demonstrates the self-reported immunization percentages for selected grades between 2000 and 2007.

Table 7
Percent of Kindergarten, First Grade & Sixth Grade Students with Complete Immunizations Indiana : 2000 - 2007
(Annual School Self-Reported Immunization Assessments)

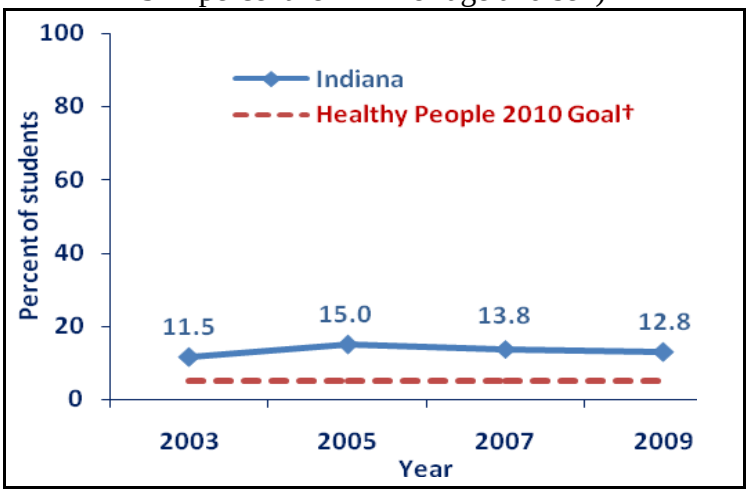
School Year	Kindergarten	First Grade	Sixth Grade
2000-01	90%	95%	95%
2001-02	92%	84%	97%
2002-03*	85%	96%	75%
2003-04	91%	97%	93%
2004-05**	94%	94%	93%
2005-06	91%	97%	93%
2006-07	94%	96%	98%

*Vaccine shortages were experienced during the 2002-2003 school year.
**For the 2004-2005 school year, new school requirements were adopted for kindergarten and first grade students.
Source: Indiana State Department of Health, Immunization Program (November 20, 2009)

Obesity/Overweight-- The overall goal outlined in Healthy People 2010 is to decrease the proportion of overweight 9th through 12th graders from 11 to 5 percent. The 2009 YRBS, for grades nine through twelve, looked at key areas which contribute to weight and nutrition. One key area of concern is overweight and obese children. In youth, obesity is linked to high blood pressure, type 2 diabetes, and high cholesterol. Obesity can also lead to coronary heart disease later in life.

In the 2009 YRBS report for Indiana, 12.8% of youth reported they are obese (at or above the 95th percentile for their age, sex and BMI), which is down from 15% in 2005. The data show that 15.9% of youth are overweight (between 85th and 94th percentile), which is a full percent and a half higher than in 2005, 14.3%. Even though the numbers changed, the changes were not statistically significant. Note that body mass index (BMI) data are computed from self-reported weight and height information.

Figure 25
Percent of high school students who were obese—Indiana, 2003–2009
Obese (i.e., ≥95th percentile for Body Mass Index (BMI) for age and sex); Overweight (i.e., 85–94th percentile BMI for age and sex)

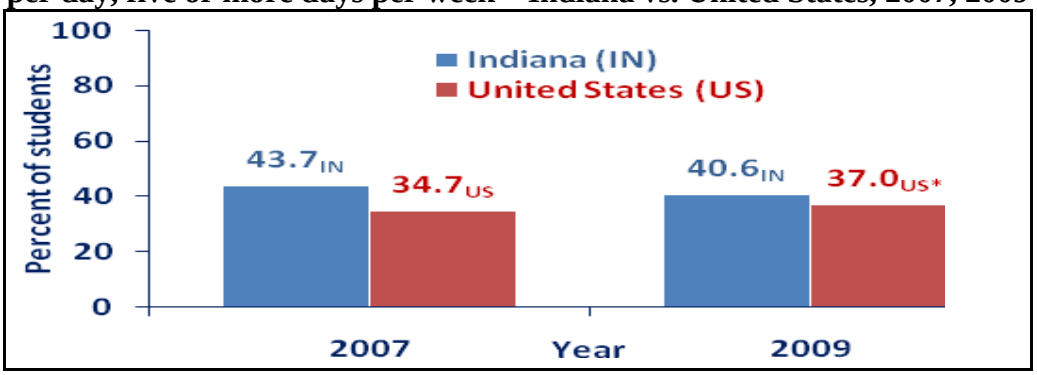


Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2010]; YRBS Data.
Original Data From: Centers for Disease Control and Prevention.

The 2009 YRBS report also showed a decrease in the number of youth who ate five or more servings of fruits and vegetables in the past week (16.1%), compared to 2003 data (20.3%). This change was significant. Milk consumption has also decreased since 2003 from 21.2% to 14.2%, which is also a significant change The data also show that over a third (35.6%) of youth drank at least one serving of soda a day over the past week in 2007, but decreased to 29.7% in 2009. This result is also statistically significant.

In 2007, there was a significant increase in students that were physically active at least 60 minutes a day, 5 days a week at 43.7% compared to 2005 at 32.2%, but decreased in 2009 to 40.6%, which was a significant decrease. The percentage of students who reported watching three or more hours of television per day in 2009, 29.0, also decreased compared to 2003, which was 32.9%. The goal of the Healthy People 2010 is to increase the proportion of adolescents who take part in vigorous physical activity at least 20 minutes, three days a week, from 65% to 85%. To see the comparison of physical activity in Indiana youth and the United States, see the following Figure 46.

Figure 46
Percent of high school students who were physically active for a total of at least 60 minutes per day, five or more days per week—Indiana vs. United States, 2007, 2009



Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009]; YRBS Data.
Original Data From: Centers for Disease Control and Prevention.
*2009 United States YRBS data are provisional

The CDC recommends at least 20 minutes of vigorous physical activity three days a week, or 30 minutes of moderate physical activity five days a week. The lack of physical activity has been linked to cardiovascular disease, hypertension, obesity, diabetes, osteoporosis, and certain cancers.

The 2009 YRBS report also evaluated some methods of attempted weight control in youth. The report showed that over 5% of youth vomit or use laxatives to lose weight, with no significant change from the past. The use of powders and liquid or pill forms of supplements to lose weight, without doctor consultation, decreased from 10.1% to 4.9% from 2003 to 2009, which was a significant change.

Asthma--The Indiana State Department of Health Asthma Program epidemiologist, in conjunction with the Indiana Asthma Coalition, collects and analyzes data from the Behavioral Risk Factor Surveillance System (BRFSS) and hospital discharge records. In Indiana, over the past three years, there has been a slight decrease in the prevalence of asthma in children under 18 years of age. In both 2005 and 2006 the prevalence was 8.4% of children in Indiana currently suffered from asthma. In 2007 that percentage dropped to 8.0%. The percentage of white children also decreased over these years from 9.2% in 2005 to 7.6% in 2007. The percentage of black children has increased over this time period from 12.7% in 2005 to 15.2% in 2007. The following Table demonstrates the percentages over the past 3 years.

Table 7
Percent Prevalence of Asthma in Children (0 to 18) by Sex, Race, and Ethnicity
Indiana: 2005-2007

Current	2005	2006	2007
Children Prevalence	8.4% (7.0 - 9.9)*	8.4% (6.9 - 9.8)*	8.0 % 6.3 - 9.6)*
Children-Male Prevalence	8.7% (6.6 - 10.7)*	9.8% (7.6 - 12.0)*	8.9% (6.3 - 11.5)*
Children-Female Prevalence	8.2% (6.2 - 10.2)*	6.9% (5.1 - 8.8)*	6.9% (5.0 - 8.8)*
Children-White Non-Hispanic	9.2% (7.5 - 11.0)*	8.1% (6.6 - 9.7)*	7.6% (5.9 - 9.2)*
Children-Black Non-Hispanic	12.7% (6.9 - 18.5)*	14.2% (8.1 - 20.3)*	15.2% (6.3 - 24.2)*
Children-Hispanic	N/A**	N/A**	N/A**

*95 Confidence Interval ** Not Available
Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009].
Original data from: Centers for Disease Control and Prevention, BRFSS. Indiana State Department of Health, PHPC, ERC, Data Analysis Team.

The following table demonstrates the percentage of males and females who have asthma among the total population of children with asthma. Females do not have a higher percentage than males until the oldest age range, (Table 8). Provisional data for 2008 indicates that for the age 0 to 4 group the age-specific rate per 10,000 population for hospital discharge for asthma was 25.75 for all both sex and all races.

Table 8
Child Asthma Rates by Age and Sex
Indiana: 2007

Age Group	Percent Female	Percent Male	Percent Total
00 -04	35.26	64.74	100
05-07	37.92	62.08	100
08-14	38.61	61.39	100
15-17	56.52	43.48	100

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009].
Original Data From: Indiana State Department of Health, Asthma Program.

An analysis of hospital discharge data indicates the number of Indiana children with the reason for hospitalization indicated as asthma. The rates decreased between 2003 (386.8 per 100,000) and 2007 (228.8 per 100,000). These numbers were analyzed using age-specific rates per 100,000, (see Table 9 below).

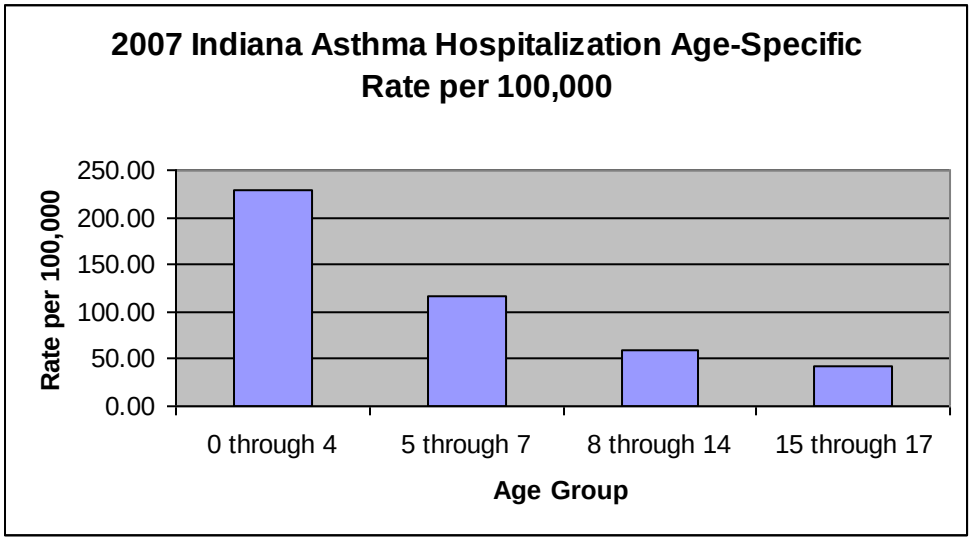
Table 9
Indiana Asthma Hospital Discharges for Children Under 5 Years
Indiana: 2003-2007

Year	Freq	Pop	Age-specific rates per 100,000
2007	1041	437,494	228.8
2006	1,076	431,089	249.6
2005	1,243	430,439	288.8
2004	1,276	430,557	296.4
2003	1,664	430,166	386.8

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009].
Original data from: Indiana State Department of Health, Asthma Program.

The age-specific rates per 100,000 of Indiana children hospitalized for asthma decline as the children get older. The highest rate is in children between birth and the age of 4 years (228.8 per 100,000). The rate then decreases as children reach the age of 5 through 7 to 117.03 per 100,000. The rate is then cut in half once the children are between 8 and 14, dropping sharply to 59.14 per 100,000. The oldest children, 15 through 17, have the lowest age-specific rate of Indiana children hospitalized for asthma at 41.64 per 100,000.

Figure 27
Asthma Hospitalization by Age Group
Indiana: 2007
(Rate per 100,000)



Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009].
Original Data From: Indiana State Department of Health, Asthma Program.

The male population has a higher percentage of hospitalizations when younger, but as children grow older the female population has a higher percentage. The following table demonstrates the percentage of males and females who have asthma among the total population of children with asthma. Females do not have a higher percentage than males until the oldest age range, (Table

9). Provisional data for 2008 indicates that for the age 0 to 4 group the age-specific rate per 10,000 population for hospital discharge for asthma was 25.75 for all both sex and all races.

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15-17	56.52	43.48	100

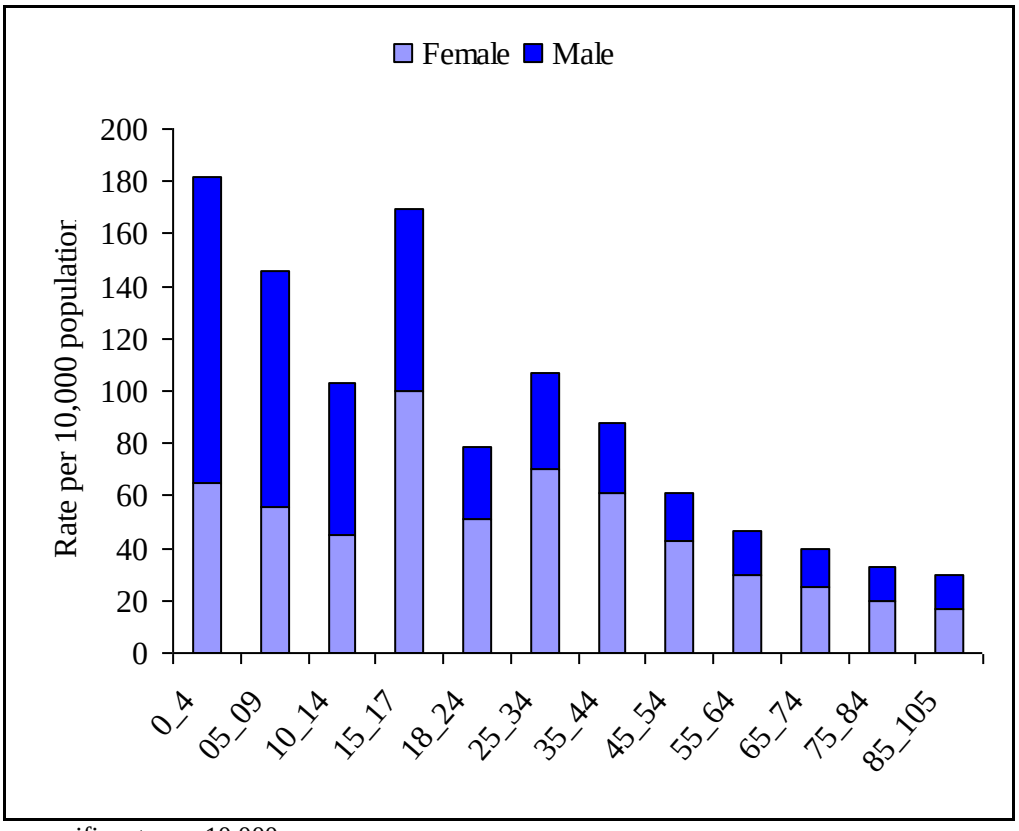
Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009].
Original Data From: Indiana State Department of Health, Asthma Program.

The mortality rate for children dying in Indiana from asthma is very unstable because the numbers are so low. Between 2000 and 2006 a total number of 35 children in Indiana have died from asthma. The average is five a year, with the largest number of deaths being eight in 2003.

The Indiana State Department of Health, Asthma Program epidemiologist, completed a report detailing the prevalence of Asthma between 2001 and 2008. The following data are still preliminary, but shows trends over those years.

Both lifetime, persons ever having asthma, and current asthma prevalence have been relatively stable since 2001 for Indiana resident 17 years and younger. Among the age group 17 and younger, in 2008, the prevalence of lifetime asthma was 13 percent and 8.6 percent for current asthma. No significant differences were seen between prevalence of lifetime and current asthma among males and females, age group 17 and younger, Indiana in 2008. No significant differences were seen between current and lifetime asthma prevalence of whites, Blacks and Hispanic with age group 17 and younger in Indiana in 2008. Age groups 0-4 and 15-17 had higher rates of Emergency Department (ED) visits for asthma (91.6 and 84.3 per 10,000 population) in 2007, Indiana. Males had higher Emergency Department rates than females for age groups younger than 15 but lower rates than female after age 15.

Figure 28
Rate of Emergency Department Visits for Asthma by Sex and Age Group*
Indiana: 2007.



* Age specific rate per 10,000

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009].

Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team, ISDH Asthma Program.

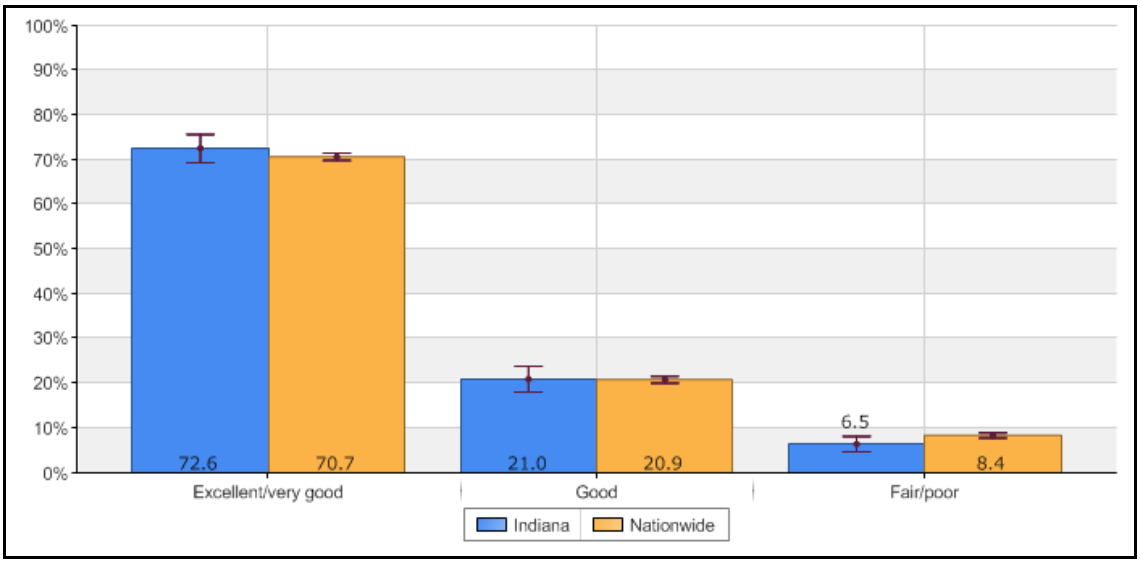
Oral Health--The Indiana State Department of Health is currently in the process of restructuring the oral health program. This includes hiring a new oral health director; designing surveys for oral health using CDC guidelines and the Association of State and Territorial Dental Directors (ASTDD) program; and analyzing oral health data.

Dental decay results in needless pain and suffering; difficulty speaking, chewing, and swallowing; increased costs of care; loss of self-esteem; decreased economic productivity through lost work and school days; and, in extreme cases, death. Healthy People 2010 includes goals to reduce untreated dental decay so that the proportion of children with dental caries is no more than 21% among children age 6 to 8 and no more than 15% among adolescents age 15. Another goal is to increase to at least 50% the proportion of children who have received protective sealants on the chewing or occlusal surfaces of permanent molar teeth.

The National Survey of Children's Health (NSCH) was conducted in 2003 and 2007, and asks numerous questions pertaining to the oral health of children. Indiana has decreased in the percentage of children, ages 1-17, whose overall condition of teeth were in excellent or very

good condition between 2003 and 2007 from 73.2 percent down to 72.6 percent. In this same time frame the United States improved from 68.5 percent to 70.7 percent. Even with the decrease in Indiana and the increase in the nation, Indiana still has a larger population of children (ages 1-17) who have overall excellent or very good condition of their teeth. The differences between Indiana and the United States, and Region V are not statistically significant in Figures 29 through 31, but do show that in all instances Indiana needs improvement.

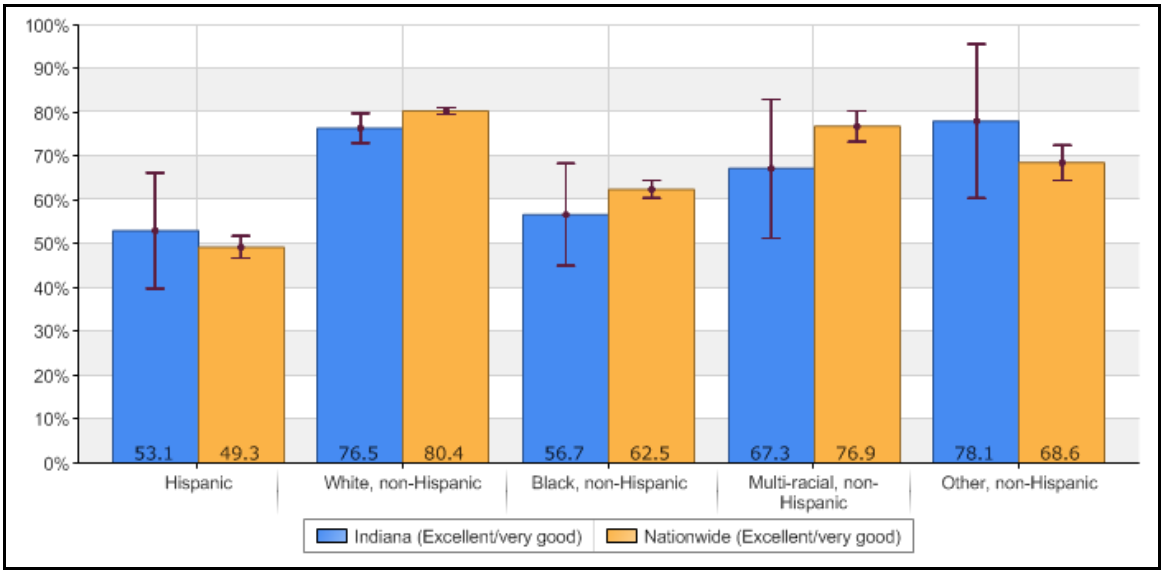
Figure 29
Overall Condition of Children's Teeth (Ages 1-17 Years)
Indiana and Nationwide: 2007



Source: Child and Adolescent Health Measurement Initiative. *2007 National Survey of Children's Health*, Data Resource Center for Child and Adolescent Health website: (retrieved [November 20, 2009] from www.nschdata.org)

Despite Indiana's larger percentage of children, ages 1-17, whose teeth are in excellent or very good condition compared to the nation, Indiana actually has a lower percentage of white (non-Hispanic) and black (non-Hispanic) children than the nation with teeth in excellent or very good condition. In 2007, white/non-Hispanic children, ages 1-17, in Indiana with excellent or very good teeth condition was 76.5%, which was lower than the same population for the nation of 80.4 percent. For black/non-Hispanic children in Indiana, the percentage is also lower than the nation, with only 56.7% having excellent or very good teeth condition compared to 62.5% for the nation. For both Indiana and the nation, the black/non-Hispanic percentage is much lower than the white/non-Hispanic percentage in both 2003 and 2007. The sample size for black/non-Hispanic children who have fair/poor teeth condition is unreliable in Indiana. However, trends go along with the national average showing that the percentage of black/non-Hispanic children, ages 1-17, with fair/poor teeth condition is much higher than the white/non-Hispanic population.

Figure 30
Children's Teeth Having Condition of "Excellent/Very Good"
(Ages 1-17 Years by Ethnicity)
Indiana and Nationwide: 2007



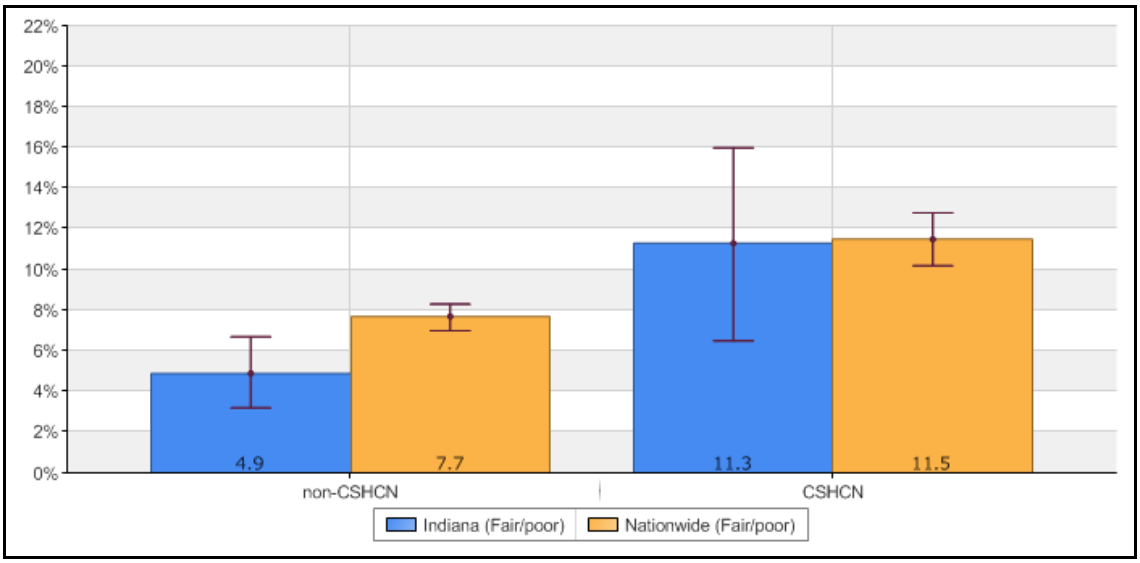
Source: Child and Adolescent Health Measurement Initiative. *2007 National Survey of Children's Health*, Data Resource Center for Child and Adolescent Health website: (retrieved [November 20, 2009] from www.nschdata.org)

When parents were asked if their children had experienced cavities or tooth decay in the past 6 months, only 17.1% of Indiana children (ages 1-17) said yes in 2007, which is lower than the nation (19.4%). This same question was not asked in 2003 so it can not be compared to 2007 data.

Another Indiana population that shows a difference is the Children with Special Healthcare Needs (CSHCN). This population is consistently lower than the non-CSHCN population in the percentage of children ages 1-17 with teeth in excellent or very good condition. This percentage in 2003 for Indiana CSHCN was 71.4%, which was better than the national average of 64.9 percent. This trend changed between 2003 and 2007 though, when Indiana fell below the national average. In 2007, the percentage of CSHCN with teeth in excellent or very good condition dropped all the way to 62.8%, which was now below the national average of 64.7%, and much below the 2003 percentage for Indiana (71.4%).

The other end of the spectrum, when looking at the oral condition of this population, is the percentage of children with teeth in fair/poor condition. In 2007 the percentage of children in Indiana with teeth in fair/poor condition was 4.9 percent. The CHSHC population had a percentage of 11.3 for teeth in fair/poor condition. This represents an increase since 2003, when the percentage of CSHCN with fair/poor teeth condition was 8.8 percent. In both 2003 and 2007, Indiana CSHCN with teeth in fair/poor condition were still below the national average (12.4 and 11.5 percent).

Figure 31
Children Having Overall Teeth Condition of "Fair/Poor"
Comparison with Children with Special Healthcare Needs status
(Ages 1-17 Years)
Indiana and Nationwide: 2007



Source: Child and Adolescent Health Measurement Initiative. *2007 National Survey of Children's Health*, Data Resource Center for Child and Adolescent Health website: (retrieved [November 20, 2009] from www.nschdata.org)

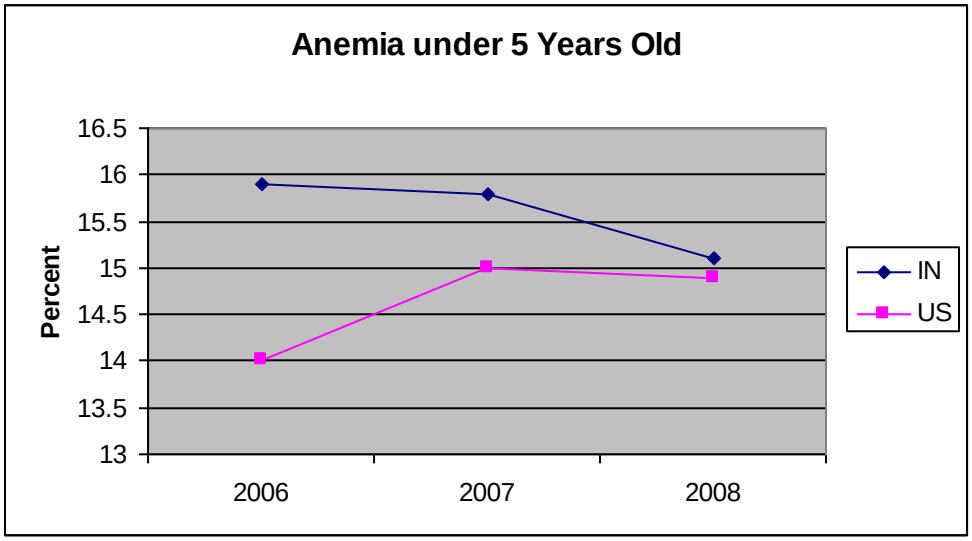
Since 2002, Indiana has utilized the CDC's Water Fluoridation Reporting System (WFRS). Indiana used this report to describe the percentage of Indiana's population on public water systems who receive recommended fluoridated drinking water. Indiana currently utilizes the tracking tool developed by the CDC and the Association of State and Territorial Dental Directors (ASTDD) to track the percentages. Between 2002 and 2007 about 70% of Indiana's residents had public water supply (PWS). Residents with PWS had between 95 and 96 percent fluoridated water between 2002 and 2007, with over 97% of those fluoridated PWS meeting optimal fluoride standards.

SEAL Indiana is a state-wide not-for profit dental sealant program of Indiana University, School of Dentistry, partially funded by the Indiana Title V block grant, with the goal to treat rural and urban children of low-income families. Since this program was established in 2003, over 17,000 children have received dental exams and over 24,000 dental sealants, along with over 11,000 fluoride varnish treatments.

Iron Deficiency--Iron deficiency delays childhood growth and development and effects several organs due to depletion of body's ability to transport oxygen to the cells. Iron deficiency can be caused by nutrient deficiencies, infection, inflammation, and hereditary causes. The Healthy People 2010 goal is to reduce the prevalence of anemia to 5% among 1 to 2 year old and to 1% among 3 to 4 year old. The prevalence of anemia among children in Indiana collected from WIC data has been consistently higher than the national average. In 2004 the percentage of children under 5 on WIC with anemia was 15.4% in Indiana and 13.8% in the entire United States. In 2007 the percentage had grown to 15.8% in Indiana and 15% in the nation. In 2008, the percentage decreased to 15.1% in Indiana and 14.9% in the nation. The following figure

demonstrates the steady increase of anemia in children under 5 between 2006 and 2008 in Indiana compared to the nation.

Figure 32
Anemia in Children Under 5 on the WIC Program
Indiana and United States: 2006-2008

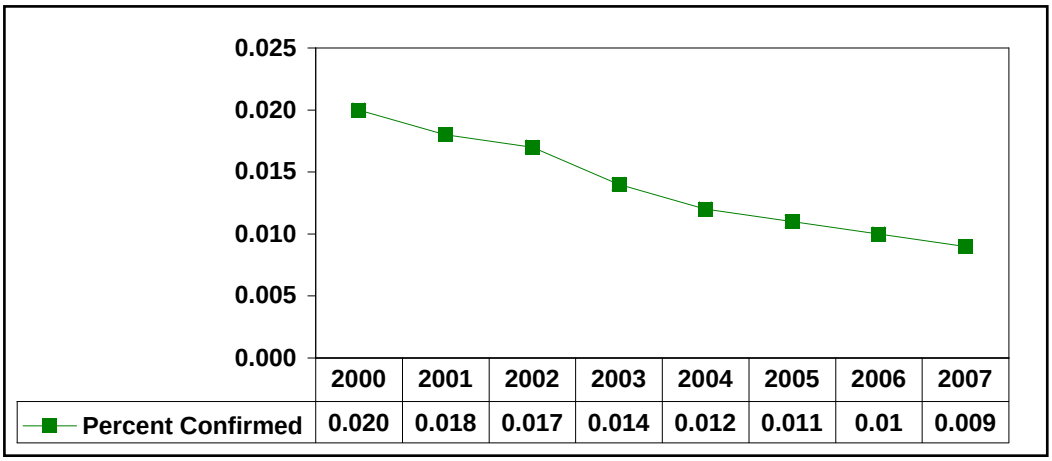


Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [November 20, 2009]; WIC Data.
Original Source: Centers for Disease Control and Prevention, Health and Human Services, Pediatric Nutrition Surveillance.

Lead Poisoning--Lead poisoning is a silent menace which often does not manifest itself until the damage is done. The condition can permanently and irreversibly damage the developing brains and other organs of young children. Serious effects can include lowered intelligence, behavior disorder, and slowed physical development. Once poisoned, a young child's chances for academic, social and occupational success are significantly diminished. A child with one venous blood specimen ≥10 µg/dL, or any combination of two capillary and/or unknown blood specimens ≥10 µg/dL drawn within 12 weeks of each other is confirmed for elevated blood lead level (EBLL).

The number of Indiana children under seven years old who were tested for lead increased by 13,751 (26%) in calendar year 2007. As a result of increased testing, the number of children confirmed as lead-poisoned has also increased to 656 (13.5%). Since 2000, 336,519 children have been tested. Of those, 4,514 have been confirmed with elevated blood lead levels. The following Figure 33 shows the percent of children screened who have been confirmed as lead poisoned.

Figure 33
Percent Confirmed Cases of Children Tested for Lead Poisoning*
Indiana: 2000-2007



*(Percent of those tested)

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [August 10, 2009].
Original Data From: Indiana State Department of Health, Lead Prevention.

Between 2000 and 2007 Indiana has been able to test more children under the age of seven for lead poisoning. The following table demonstrates the increase in the number of children under the age of seven tested for lead poisoning in Indiana.

Table 10
Number of Children Tested for Lead Poisoning Under 7 Years of Age
Indiana: 2000-2007

Year	Tested	# Confirmed	% Confirmed
2007	66,722	656	0.98
2006	52,971	578	1.09
2005	47,464	553	1.17
2004	43,999	550	1.25
2003	41,287	589	1.43
2002	30,360	540	1.78
2001	27,752	527	1.90
2000	25,964	521	2.01

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [August 10, 2009].
Original Data From: Indiana State Department of Health, Lead Prevention.

The number of children tested and confirmed in 2007 was also broken down by county. The five most populated counties which also had the most confirmed cases were Allen, Elkhart, Lake, Marion and St. Joseph counties. All five of these counties had a percentage tested and confirmed higher than the state average for 2007. Vigo County, which is located in west-central Indiana, had an alarming percent of confirmed per tested (.037%), as shown in the table below, compared to the state average of .009 percent. The percents for these counties are in Table 11.

Table 11
Counties with Highest Number Tested and Confirmed Cases of Lead Poisoning
Indiana: 2007

County	Tested	# Confirmed	% Confirmed
Allen	3882	67	0.017
Elkhart	2761	46	0.016
Lake	4610	61	0.013
Marion	13022	188	0.014
St. Joseph	2912	34	0.011
Vigo	567	21	0.037
Indiana	66722	656	0.009

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [August10, 2009].
Original Data From: Indiana State Department of Health, Lead Prevention.

The number of children with confirmed elevated blood lead levels (EBLL) below the age of 72 months in Indiana in 2006 was very similar to the national average. To see Indiana and other states in Region V and the US, refer to the table below.

Table 12
Percent Children Tested and Confirmed with Elevated Blood Level Lead
Below Age 72 Months
Region V and United States: 2006

State	% Confirmed
Michigan	1.86%
Ohio	2.3%
Illinois	Not Known
Wisconsin	1.97%
Minnesota	0.72%
Indiana	1.22%
United States	1.21%

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [August10, 2009].
Original Data From: Centers for Disease Control and Prevention. August 12, 2009, from http://www.cdc.gov/nceh/lead/data/national.htm

Mortality--In July of 2009, the ISDH Injury Prevention program finished a report on injury-related deaths and hospitalizations for Indiana from 2003 through 2006. Homicide and assault were highlighted in this report. Homicide was the 13th leading cause of death for males and the 20th leading cause of death for females for Indiana residents of all ages, claiming an overall total of 1,419 lives. Males were 2.9 times more likely to die from homicide than females (8.5 per 100,000 vs. 2.9 per 100,000). Between 2003 and 2006, black males had the highest rate of death due to homicide (55.0 per 100,000) than all other race/gender categories. Black males were nearly 14 times more likely to die than white males from homicide. Individuals 15-24 and 25-34 years of age had the highest age-adjusted homicide rate (10.1 per 100,000 and 10.4 per 100,000) of all ages.

The Indiana State Department of Health Injury Prevention Program also reported on injuries during this time period (2003 through 2006). Injuries are the number one cause of death for children and young adults in Indiana and the United States. In Indiana, between 2003 and 2006, injury is one of the top five leading causes of death in all age ranges (0 through 24), excluding birth defect related conditions. From the ages one through 24, unintentional motor vehicle accidents are the leading cause of death. Under the age of one, unintentional suffocation is the leading cause of death. The following Table demonstrates the five leading causes of injury deaths in selected age ranges between 2003 and 2006.

Table 13
Five Leading Causes of Injury Deaths by Age
Indiana: 2003-2006

Age	Cause	Number	Percent**
1 to 4 Years*	Unintentional Motor Vehicle Overall	58	24.1
	Unintentional Drowning	41	17.0
	Unintentional Fire/Burn	40	16.6
	Unintentional Suffocation	20	8.3
	Unintentional Natural/Environmental	7	2.9
5 to 14 Years	Unintentional Motor Vehicle Overall	122	40.8
	Unintentional Fire/Burn	28	9.4
	Unintentional Drowning	24	8.0
	Assault Firearm	19	6.4
	Self-Inflicted Suffocation	18	6.0
15-24 Years	Unintentional Motor Vehicle Overall	987	43.5
	Assault firearm	364	16.0
	Unintentional Poisoning	204	9.0
	Self-inflicted firearm	189	8.3
	Self-inflicted suffocation	123	5.4

*For ages 1-4, there were also 7 deaths from assault, struck by/against
**All percents out of total number of injury deaths for each age group

Source: Original Data from Indiana State Department of Health, Epidemiology Resource Center, Data Analysis Team. Chart produced by Injury Prevention Program

This section of the report was designed by the Indiana State Department of Health Injury Prevention Program to summarize the varying roles injuries play related to ages and to the developmental stages of life. Since traditional public health statistical age groupings do not always synchronize well with developmental life stages, this information attempts to provide some understanding of the changing contribution of injuries to fatalities and to hospitalizations in Indiana as individuals mature and move through childhood to adulthood

From 2003 to 2006, the leading cause of injury death in Indiana for preschool aged children (ages 1 to 4) was unintentional injuries (185 deaths). Young children are at a greater risk for injuries, including such factors as being curious and exploring their environment. Preschool age

children also have limited physical coordination, which can lead to falls from bicycles and playground equipment. Preschool aged children received more than half of the fatal injuries from motor vehicle traffic-related incidents and drowning (58 deaths and 41 deaths, respectively). The rate of death for males was 18.6 per 100,000, while the female rate of death was slightly less at 16.3 per 100,000. The top three causes of hospital admissions for 1 to 4 year olds were falls, fire and poisoning. Each cause accounted for 23.2% (369/1,592); 20.6% (328/1,592); and 16.6% (263/1,592), respectively of all hospitalizations.

Elementary school age children (ages 5 to 9 years) are more susceptible to motor vehicle crashes, bicycle crashes, pedestrian injuries, and dog bites. Children in this age group are often unable to judge if an environment is safe and are more likely to demonstrate risky behaviors stimulated by impulse.

From 2003 to 2006, there were 121 injury deaths for elementary school age children. Children aged 5 to 9 had the lowest age-specific rate of death compared to all other age groups. Males aged 5 to 9 had an age-specific death rate of 8.1 per 100,000, and females had an age-specific death rate of 5.8 per 100,000. The leading cause of death was unintentional injuries (100 deaths). Elementary school aged children received more fatal injuries from motor vehicle traffic-related incidents, which accounted for 25.9% of all unintentional injury deaths (48/185). Although fall-related injuries within this age group accounted for approximately one-third (27.9% or 375/1,345) of hospitalizations, this injury mechanism is not among the top five leading causes of death. Motor vehicle crash (MVC) injuries were the 2nd leading cause of inpatient hospitalization and accounted for 21.0% of all injuries in this age group (282/1,345). Children ages 5-9 have higher rates of emergency department visits for playground injuries than any other age group, according to the CDC.

The younger adolescent (ages 10 - 14) and the older adolescent (ages 15 – 19) groups demonstrate an expanded list of injury prevention concerns. The leading causes of death among adolescents and young adults are motor vehicle crashes, drowning, suicide and homicide. Consequently, young people are involved in violence more than any other age group.[(8)] Safe driving skills only improve with experience in operating a motor vehicle. Experimentation with or involvement in illegal drugs or alcohol are also important risk factors for injuries.

In Indiana, motor vehicle traffic incidents were by far the leading cause of injury and death among adolescents (aged 10 to 19 years). From 2003 to 2006, there were 538 deaths due to unintentional motor vehicle crash injuries, which accounted for 75.4% of all unintentional injury deaths. Poisoning (7.85%) and drowning (3.8%) are the next leading causes of unintentional injury deaths For adolescents, the second leading cause of death was suicide with 147 deaths (68 self-inflicted firearm deaths, 64 self-inflicted suffocation deaths, and 15 self-inflicted poisoning deaths). The third leading cause of death was assault/homicide by firearm with 146 deaths.

Among hospital admissions, motor vehicle crashes accounted for 30.8% of all hospital admissions (2,216/7,196). While driving a car becomes a common “rite of passage” for 16-year-olds in Indiana, their driving skills only improve with experience in operating a motor vehicle. Impulsive, risk-taking behavior continues with this age group and may include experimentation with or involvement in alcohol and substance abuse. Poisoning (24.0% or 1728/7196) and falls

(11.4% or 821/7,196) are the second and third leading cause for unintentional injury hospital admission in this age group. Suicide attempts and completions are also important causes of injury and death.

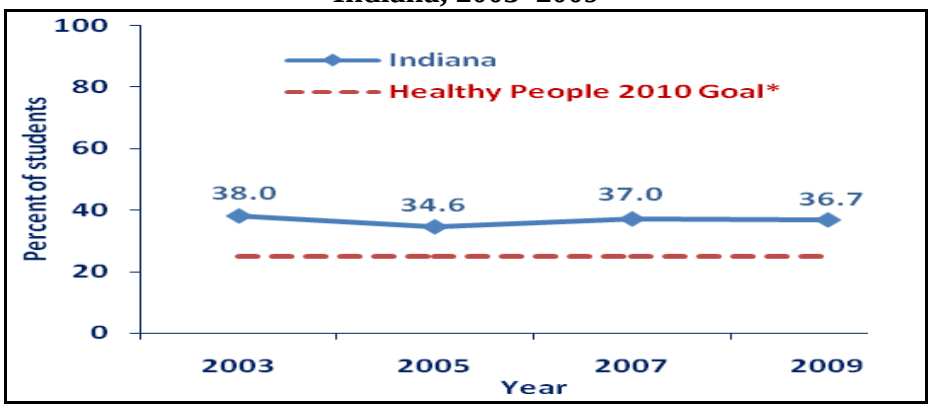
Sexual Behavior--Every year one out of four sexually active teens becomes infected with an STD in the US. In 2009, one out of every three Chlamydia cases in Indiana was someone under the age of 19. One out of four cases of Gonorrhea was someone under 19. In 2009, females had 75% of the Chlamydia cases and about 58% of the Gonorrhea cases. Black non-Hispanics were more likely to have Chlamydia and Gonorrhea in 2009 than white non-Hispanics. The emerging adult population of ages 20-24 had the most cases of Chlamydia and Gonorrhea in Indiana in 2009. The younger an individual initiates sexual intercourse, the more likely they are to have more lifetime sexual partners, the higher the risk of pregnancy, and the lower the chances of using contraception.

In Indiana, the number of high school students who reported ever having sex did not change between 2003 and 2009 (48.8% to 49.2%). The percentage of students who reported using a condom during their last sexual intercourse also did not change between 2003 and 2009 (55.4% to 58.0%).

The 2009 YRBS data indicate that 4.5% of the students interviewed reported having their first sexual intercourse before the age of 13. In addition, 21.0% reported using drugs or alcohol before their last sexual intercourse. About 1 in 4 students reported using birth control pills before their last sexual intercourse. Approximately 14% of students reported having four or more sexual partners in their lifetime.

Healthy People 2010 has many goals to address the sexual behaviors of adolescents. These include reducing pregnancies among adolescent females to 43 per 100,000, increasing the proportion of youth who have never had sexual intercourse to 75%, and having 95% of adolescents use condoms or abstain from sexual intercourse. To see how Indiana compares between 2003 and 2009 to the Healthy People 2010 Goal for High School students reporting having sex in the past 3 months, please refer to the following Figure 34.

Figure 34
Percent of high school students who have had sexual intercourse in the past three months—Indiana, 2003–2009



Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2010]. **Original Data From**: Centers for Disease Control and Prevention.
*Set of health objectives for the United States to achieve over the first decade of the 21st century

HIV/AIDS--The Healthy People 2010 goal is to reduce the number of Human Immuno-Deficiency Virus (HIV) infection cases and to lower the number of Acquired Immuno-Deficiency Syndrome (AIDS) cases. Indiana is one of 34 states and 5 dependent areas that has had confidential name-based HIV infection reporting long enough to monitor trends. In 2007, the AIDS case rate in Indiana was 5.2 per 100,000, which is much lower than the national rate of 12.5 per 100,000.

The number of new cases in Indiana for women and children has decreased between 2006 and 2008. The following Tables (Tables 14 and 15) demonstrate the Indiana HIV/AIDS diagnosis for women, infants, children and adolescents by year.

Table 14
HIV/AIDS Diagnosis for Women, Infants, Children and Adolescents
Indiana: 2006-2008

Age Group	Year		
	2006	**2007**	**2008****
Women	105	122	93
Children <1 yr*	<5	<5	0
Children, 1 – 11 yr*	<5	0	<5
Children, 12-19 yr*	20	23	14

*Diagnosis Age, ** Provisional Data
Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team, HIV/AIDS Department.

The number of new Indiana HIV/AIDS cases for women rose from 1600 in 2006 to 1807 in 2008. HIV/AIDS among the infant population (below 1) rose sharply in 2008. There were zero cases in 2006 and 2007, but 9 in 2008. The number of reported cases in the child population (ages 1 through 11) increased only slightly in prevalence between 2006 (17 cases) and 2008 (19

cases). HIV/AIDS cases in adolescent population (12-19) increased from 47 cases in 2006 to 69 cases in 2008.

Table 15
HIV/AIDS Prevalence for Women, Infants, Children and Adolescents
Indiana: 2006-2008

Age Group	Year		
	2006	2007	2008*
Women	1,600	1,715	1,807
Children <1 yr	0	0	9
Children, 1 – 11 yr	17	18	19
Children, 12-19 yr	47	57	69

*2008 Data Provisional
Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team, HIV/AIDS Department.

In Indiana, between 2006 and 2008, the most common mode of transmission of HIV/AIDS for women was heterosexual intercourse. The population of women with the highest prevalence was the 40-49 age group (626 cases in 2008), followed by the 30-39 age group (540 cases in 2008). Both of these age groups are in the child-bearing range.

Table 16
HIV/AIDS Prevalence for Women by Age
Indiana: 2006-2008

Age	Year		
	2006	2007	2008*
<1	0	0	<5
1 to 11	8	9	10
12 to 19	28	34	38
20 to 24	51	68	75
25 to 29	127	141	154
30 to 39	474	514	540
40 to 49	580	605	626
50 to 59	251	259	274
60 to 64	38	40	42
65/Older	43	45	46

*2008 Data Provisional
Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team, HIV/AIDS Department.

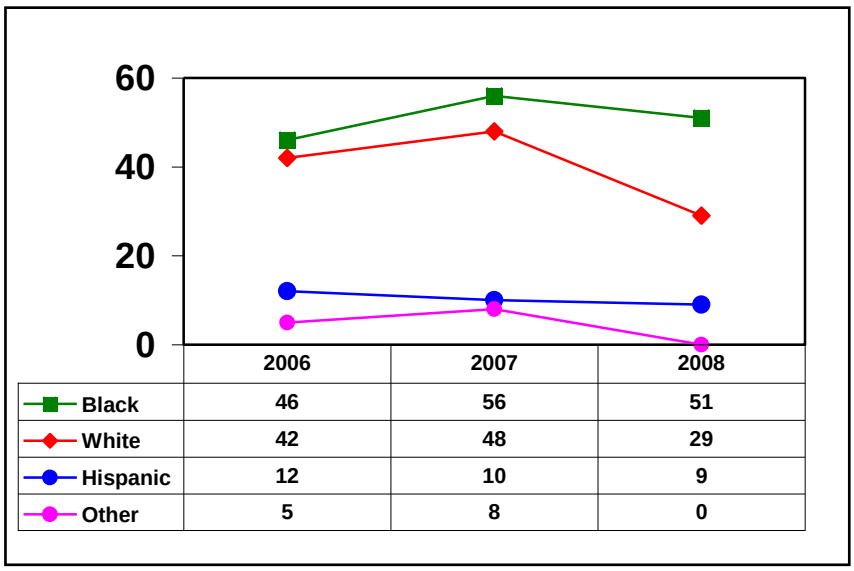
Table 17
HIV/AIDS Prevalence for Women by Mode of Transmission
Indiana: 2006-2008

Mode	Year		
	2006	2007	2008*
Hetero	980	1031	1068
IDU	87	93	94
IDU/Hetero	151	159	161
Perinatal	47	48	51
Other	335	384	433

*2008 Data Provisional IDU=Intravenous Drug Use

In Indiana between 2006 and 2008, the diagnosis of women with HIV/AIDS by race and ethnicity decreased in all groups except for the black female population. The number increased from 46 in 2006 to 51 in 2008 for new diagnosis of HIV/AIDS. The black population did show a decrease in the number of women with a HIV/AIDS diagnoses between 2007 (56 cases) and 2008 (51 cases).

Figure 35
HIV/AIDS Diagnosis for Women by Race and Ethnicity
Indiana: 2006-2008*



*2008 Data Provisional

Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team, HIV/AIDS Department.

In Indiana in 2007, male adults and adolescents were much more likely to have AIDS then females, 9.9 to 2.9 per 100,000. However, both rates were still much lower than the national average of 22.9 and 7.7 per 100,000. Indiana is lower than the national average in HIV/AIDS in most categories.

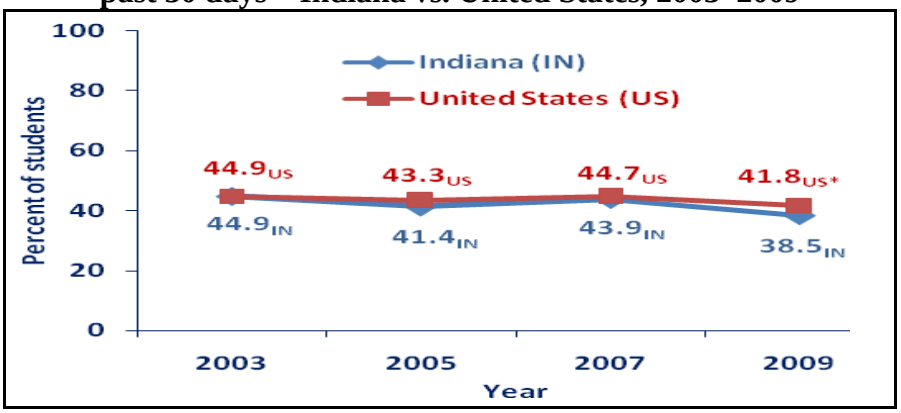
Youth Drinking and Drug Use -- Alcohol use among minors is a growing concern in Indiana. It plays a major role in homicides, suicides, motor vehicle deaths, and many injuries. Long-term use of alcohol can increase the chances of many chronic diseases including heart disease, certain cancers and liver disorders.

In 2009, Indiana high school students reported decreases in both the percentage of those who have consumed alcohol in their lives (from 77.8 to 69.2) and those who have had at least one drink in the past month (23.9 to 19.9) compared to 2003. Both of these decreases were significant.

In Indiana, 20.9% of high school students reported they are currently using marijuana, and 37.1% of students have reported using marijuana at least once in their life. Methamphetamine use was reported at 4.1% along with 2.6% having used heroin. High school students reported that 16% have used inhalants and 6.6% have used some form of cocaine. There were small changes in drug use; however, these changes are not significantly different.

Indiana has a lower percentage of high school students who are currently drinking, compared to the United States. Although it is not a significant difference, the percentage is still much higher than the Healthy People 2010 goal. To see the comparison, refer to the following Figure 36.

Figure 36
Percent of high school students who had at least one drink of alcohol on one or more of the past 30 days—Indiana vs. United States, 2003–2009



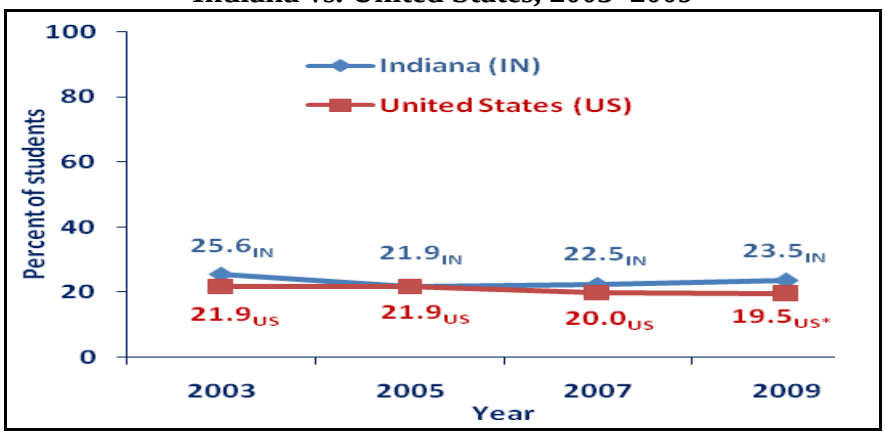
Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2010]; YRBS Data.
Original Data From: Centers for Disease Control and Prevention.
*2009 United States YRBS data are provisional

Tobacco Use -- Over a third of all cancer deaths are caused by tobacco and tobacco is responsible for over 90% of lung cancer cases. One out of five deaths is due to heart disease. According to the 2009 YRBS report, over half (52.2%) of Indiana high school students have tried smoking, which is down from 60.4% in 2003. In 2009, about a quarter (23.5%), of high school students smoked one or more times over the past month and 16.9% smoked daily.

The 2009 report shows that Indiana youth have not significantly changed in use of cigars and little cigars between 2003 and 2009 (14.7% to 16.9%). Indiana youth have increased use of chewing tobacco, snuff or dip between 2003 and 2009 (7.2% to 10.7%). This information was recorded for one or more uses in the past 30 days.

A key goal of Healthy People 2010 is to decrease the prevalence of tobacco use by minors in half--- from 40% to 21%. Quitting smoking while a youth has immediate and long-term benefits, while the earlier a youth begins to smoke is directly correlated to how addicted they become to nicotine. Of all addictive behaviors, smoking is the most likely to start as a child and according to the 2009 YRBS, over half (59.5%) of students who smoke have tried to quit in the past year.

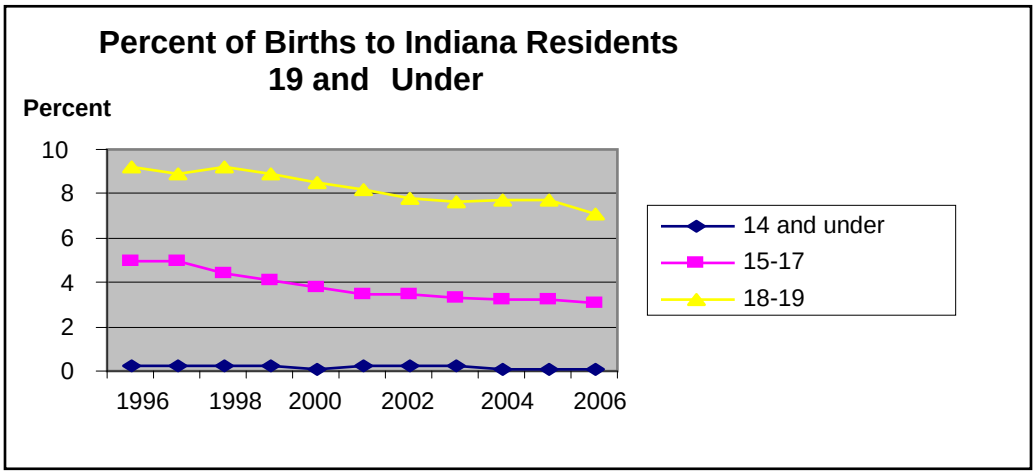
Figure 37
High School Students that Currently Smoke,
Indiana vs. United States, 2003–2009



Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2010]; YRBS Data.
Original Data From: Centers for Disease Control and Prevention.
*2009 United States YRBS data are provisional

Teen Pregnancy -- In Indiana in 2006, approximately 11% of the births to residents were by youth age 19 and under. This percent is slightly down from 2005. This number has been decreasing since 1996. To see the decrease of births to Indiana residents age 19 and under, between 1996 and 2006, please see the following Figure 38.

Figure 38
Percent of Births to Residents, Age 19 and Under
Indiana: 1996-2006



Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services, [March 20, 2009].
Original Data From: Indiana State Department of Health, PHPC, ERC, Data Analysis Team.

Morbidity--Assault accounted for approximately 3.8% (51,994 visits) of all hospital outpatient/ED visits. Males were 1.5 times more likely to be seen in an outpatient/ED facility following an assault than females (247.6 per 100,000 compared to 169.9 per 100,000). Blacks

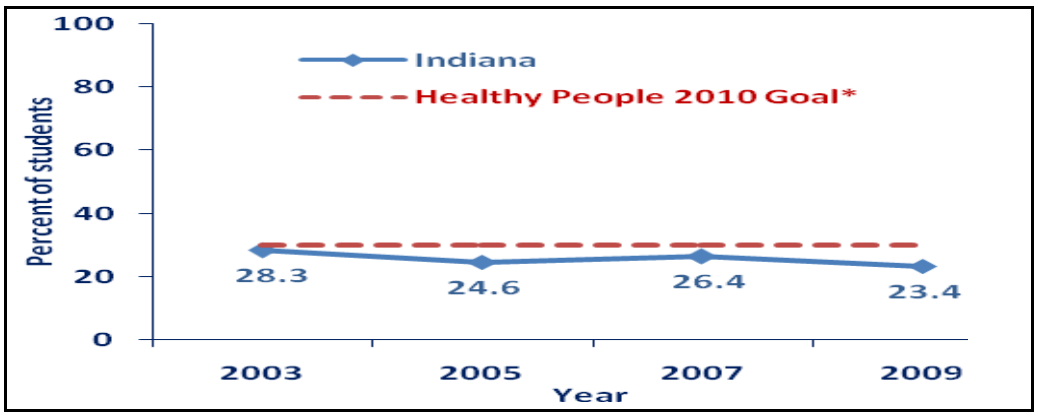
were more likely than whites to visit the outpatient/ED (471.0 per 100,000 versus 161.2 per 100,000). Those 15-24 years of age had the highest rate of outpatient/ED visits due to an assault compared to all other age groups (549.6 per 100,000).

The YRBS monitors priority health risk behaviors in youth across Indiana and the United States. A report, conducted by the Indiana State Department of Health (ISDH), analyzed data collected from surveys given to high school students in grades 9 through 12. This survey focused on behaviors contributing to physical activity, nutrition, tobacco use, alcohol use, drug use, violence, injuries and sexual behavior.

In the 2009 Indiana Youth Risk Behavior Survey (YRBS) 5.7% of high school students reported having carried a weapon on school property within the previous 30 days. About 6.5% of Indiana high school students were threatened or injured with a weapon on school property one or more times during the past 12 months.

Suicide and Injury--According to the Indiana Youth Risk Behavior Survey from 2009, the percentage of students in grades 9-12 who carried a gun during the past thirty days was 9.1% in 2007 compared to 6.9% during 2009 (not a statistically significant change from 5.7% in 2003). About 6.5% of students indicated they had been threatened or injured with a weapon such as a gun, knife, or club on school property one or more times during the past 12 months, which is not statistically more significant than 6.7% in 2003. Suicide attempts and planning attempts did not change between 2003 and 2009. There were 3.6% of students who indicated that they had made a suicide attempt that resulted in an injury, poisoning or overdose and had to be treated by a doctor or nurse compared to 1.6% during 2003, which was a significant increase. A positive for Indiana youth is that fewer high school students ride in cars driven by someone who has been drinking which surpasses the Healthy People 2010 goal, as seen in Figure 39.

Figure 39
Percent of high school students who rode in car driven by someone who had been drinking alcohol during the past 30 days—
Indiana, 2003–2009



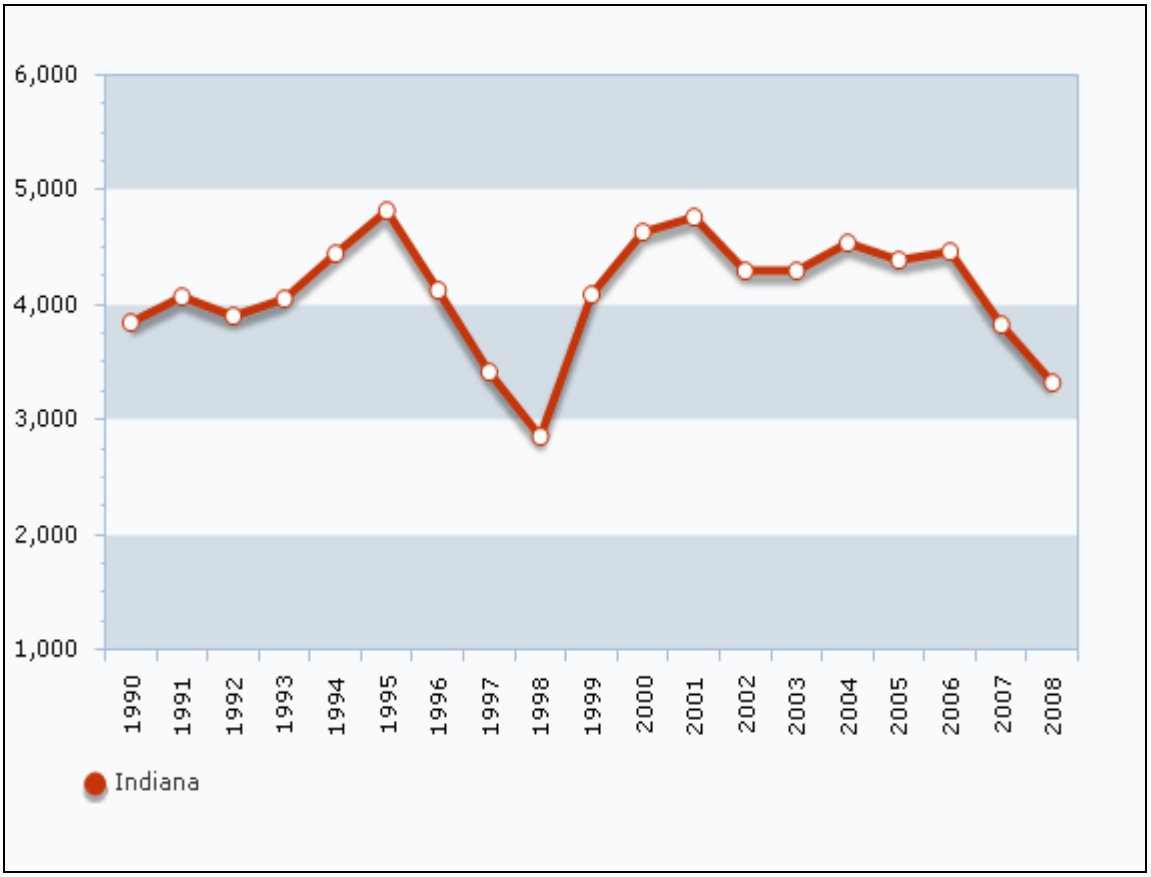
Source: Indiana State Department of Health, HHSC, Maternal & Child Health, Children's Special Healthcare Services,[March 20, 2009]: YRBS Data **Original Data From**: Centers for Disease Control and Prevention.
*Set of health objectives for the United States to achieve over the first decade of the 21st century

Fifteen percent of the total number of patients seen in an inpatient setting for self-inflicted injury were aged 10-19. Youths, ages 15-19, comprised 80% of these attempts. Sixty-eight percent of the self-inflicted injury attempts were by females and 77% were by whites. Blacks were responsible for 9% of the attempted suicides and all other races accounted for 14% of youth attempts.

Emergency department and outpatient center data recorded from hospital discharges, in Indiana, between 2003-2005 show that 28% of all self-inflicted injuries seen were committed by youth ages 10-19. The breakdown of gender and race is consistent with the data presented by inpatient centers, with white females being the most likely to self inflict injury, at 66%.

Child Abuse and Neglect -- Abuse and neglect is a very serious problem in Indiana. According to the Indiana Youth Institute, the child abuse and neglect rate dropped between 2006 and 2007 from 13 down to 11.9 per 1,000. Of the 28,217 abuse cases reported, 6,242 were substantiated. Of the 12,990 suspected sexual abuse cases, 3,866 were substantiated. Indiana's rate of child abuse and neglect was lower in 2007 than the national average of 12.1 per 1,000. This shows improvement since Indiana's rate of child abuse and neglect was higher than the national average in 2006. To see the trend of the number of child sexual abuse cases substantiated between 1990 and 2008, see Figure 40 below.

Figure 40
Number of Child Sexual Abuse Cases Substantiated
Indiana: 1990 - 2008



Source: Indiana Youth Institute. Original Source: Indiana Department of Child Services. Retrieved March 25, 2009, from http://www.iyi.org/resources/pdf/DataBook-ChildSafetyWb.pdf

Young children, under the age of five are becoming a particular area of concern with respect to abuse and neglect. This is a population which is not tracked via any school system report and thus is likely to exist "under the radar" in regards to the need for social, emotional and mental health intervention. Early childhood exposure to abuse, neglect, traumatic experiences and high-risk environments can have a life-long impact. The following chart indicates some risk categories for young children in Indiana along with an estimate of impacted population. Although this population may be on the increase, the number of service providers in the state that area qualified in the area of early childhood mental health has remained at ten, mostly clustered in the central area of the state.

Table 18
Potential Risk Categories for Social, Emotional, and Mental Health for Young Children

Risk Category	Population Estimates
Neglect	38.7% are under age of four (substantiated Indiana cases)*
Homelessness	42% of Indiana homeless children are under age of six**
Witnessed Violence	28% of homeless children under five*
Refugee/Immigrant	499,363 children under the age of 6 were foreign born or had one or more parents that were foreign born in Indiana (2006-2008 estimate)***
Parent in Military Service	Of the 2 million US children with a deployed parent 40% children are under 5 (Indiana data not available)****
Parent in Prison	Of US inmates reporting having children, 25% of children are under age 4 (Indiana data not available)*****

* Kids Count in Indiana 2009 Data Book---Indiana Youth Institute
** Issue Brief: "Homeless Youth in Indiana"—Indiana Youth Institute
***American Community Survey, U.S. Census Bureau
****Archives of Pediatric Medicine/vol 162(11), Nov 2008: "Effect of Parent's Wartime Deployment on the Behavior of Children in Military Families"
*****Bureau of Justice Statistics-Special Report "Parents in Prison and Their Minor Children" Revised 1/8/09

Summary - Issues impacting children and adolescents range from those strictly found in children to problems also found in adults. This needs assessment focused on immunization, overweight and obesity, asthma, oral health, iron deficiency, lead poisoning, injuries, sexually transmitted infections (STIs), teen pregnancy, drinking and tobacco use. Improvements have been made in the areas of immunizations, lead testing, asthma, anemia, and teen pregnancy. Dubious results have been reported in the areas of tobacco use, oral health and overweight/obesity, while STIs and early childhood mental health are areas of concern.

Immunization rates have improved over the period from 2000 to 2007. In addition, the number of children tested for lead poisoning has more than doubled between 2000 and 2007. Also, the percentage of children under five with anemia continued to decline over the period between 2006 to 2008. Teen pregnancy, or births to youth aged 19 and under, have been decreasing since 1996. Finally, there was also a slight decrease in prevalence of asthma in children under the age of 18, between 2005 and 2008, although the percentage of blacks increased during this time period.

Although the percentage of high school student who have tried smoking decreased between 2003 and 2009, the percentage using chewing tobacco, snuff or dip has increased. In addition, according to the YRBS report, the percentage of obese youth declined between 2007 and 2009. However, the percent overweight your increased. Although still above the national average, the percentage of children, ages 1 through 17, having excellent to very good teeth has dropped slightly.

Sexually transmitted infections (STIs) are an issue for adolescents. In 2009 one out of every four cases of gonorrhea was a person under 19 years of age and one out of every three cases of Chlamydia involved a youth under 19. Although child abuse and neglect has declined in

Indiana, one area that may not be closely monitored is that of children under five. However, the capacity to ascertain and treat issues related to early childhood mental health in Indiana are extremely limited. STIs and early childhood mental health will be the focus of attention during the next five year time frame along with the continued monitoring of lead/lead poisoning.

(4) Children with Special Healthcare Needs

The 2005/2006 National Survey of Children with Special Healthcare Needs (NSCSHCN) found that over 10 million children or 13.9% of all children in the United States had special needs. In Indiana, the percentage is much higher, with 16.6% of children having special healthcare needs. That is over 266,000 children in Indiana alone. Indiana has the highest prevalence of children with special needs in Region V as shown in the following table.

Table 19
Percentage of Children with Special Healthcare Needs
Indiana, Region V, and the United States: 2005-06

State	Percent Children
Indiana	16.6 (15.5-17.8)*
Illinois	13.9 (12.9-15.0)*
Michigan	15.4 (14.3-16.5)*
Minnesota	14.4 (13.4-15.4)*
Ohio	16.2 (15.0-17.3)*
Wisconsin	15.3 (14.2-16.3)*
Region V	15.2 (14.8-15.7)*
United States	13.9 (13.7-14.1)*

*95% confidence interval

Source: Child and Adolescent Health Measurement Initiative. *2005/2006 National Survey of Children with Special Healthcare Needs*, Data Resource Center for Child and Adolescent Health website. Retrieved [04/11/08] from www.cshcndata.org

Functional Limitations -- Indiana's CSHCS prevalence is higher in all age groups. (Source**:** National Survey of Children with Special Healthcare Needs Chartbook 2005-2006, HRSA Website, retrieved 02/9/2006.) In 2006, there were 89,404 births in Indiana, and many of these infants have or are at risk for special healthcare needs. Of the total births in Indiana during 2006, 8.2% were low birth weight infants (less than 2500 grams) with 10.3% being premature. Approximately 23% of Indiana's total births were to women with less than twelve years of education and over 41.2% of babies are born to unmarried mothers. A majority (52%) of Indiana children live in female-headed households. Such socio-demographic factors place children at higher risk for developmental delays and unmet needs. Looking at Children and Youth with Special Healthcare Needs (CYSHCN) by Poverty Level, the highest percentage of Indiana Children with Special Healthcare Needs (CSHCN) is seen at the 0%-99% Federal Poverty Level (FPL). Differences are observed in Indiana and national CSHCN prevalence rates by poverty level. (See Table below.)

Table 20
Percentage Prevalence of Children with Special Healthcare Needs by Federal Poverty Level (FPL)
Indiana and the United States: 2005-06

Percent Federal Poverty Level (FPL)	Indiana (%)	National (%)
0-99%	20.6	14.
100-199%	15.6	14.0
200-399%	15.4	13.5
400% or more	16.3	14.0

Source: *Indiana Community Integrated System of Services Grant. March, 2009.*
Original Source: *National Survey of Children with Special Healthcare Needs Chartbook 2005-2006*

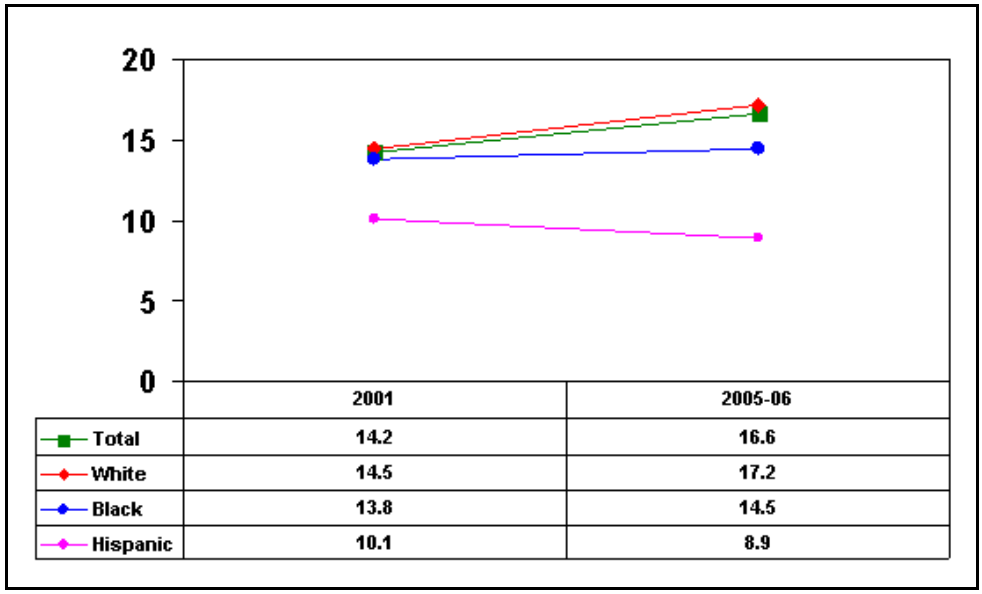
Needs by Gender and Ethnicity--Both males (18.7%) and females (14.5%) in Indiana have a higher prevalence of special healthcare needs than their peers in the US (16.1% and 11.6%). Indiana also has higher percentages in Non-Hispanic white (17.2 to 15.5) and Hispanic (8.9 to 8.3) against the US, but is lower in Non-Hispanic black (14.5 to 15.0).

Of these children with special health needs, approximately one-third of them do not have adequate health insurance (38.2-38). These conditions cause approximately one out of every four children to have family members reduce hours or quit working (24.3-23.8).

The following Figures 41 through 44 demonstrate the trend change between 2001 and 2008 for percentage of children with special healthcare needs in Indiana by different factors.

Figure 41 demonstrates the increase in CSHCN from 2001 to 2005-06 in all groups except for Hispanic, in Indiana. The largest increase was seen in the white population from 14.5% to 17.2% in Indiana over that time period.

Figure 41
Percent of Children with Special Healthcare Needs by Race and Ethnicity
Indiana: 2001-2006

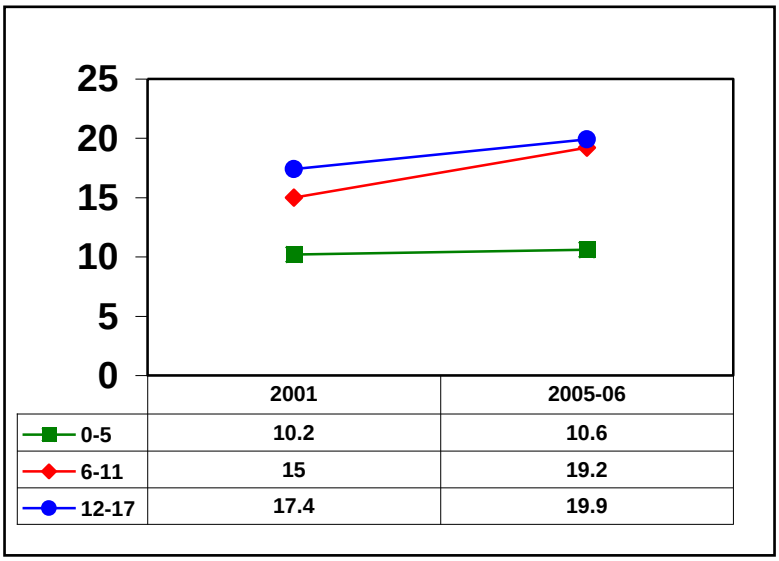


	2001	2005-06
Total	14.2	16.6
White	14.5	17.2
Black	13.8	14.5
Hispanic	10.1	8.9

Source: Child and Adolescent Health Measurement Initiative. *2001 and 2005/2006 National Survey of Children with Special Healthcare Needs,* Data Resource Center for Child and Adolescent Health website: (retrieved [March 6, 2009] from www.cshcndata.org)

Figure 42 shows the increase of CSHCN by age in all three groups between 2001 and 2005-06 in Indiana. The groups are divided by 0-5, 6-11, and 12-17. The group with the greatest percent increase was the 6 through 11 age group, which increased from 15% to 19.2 % between 2001 and 2005-06.

Figure 42
Percent of Children with Special Healthcare Needs by Age
Indiana: 2001-2006

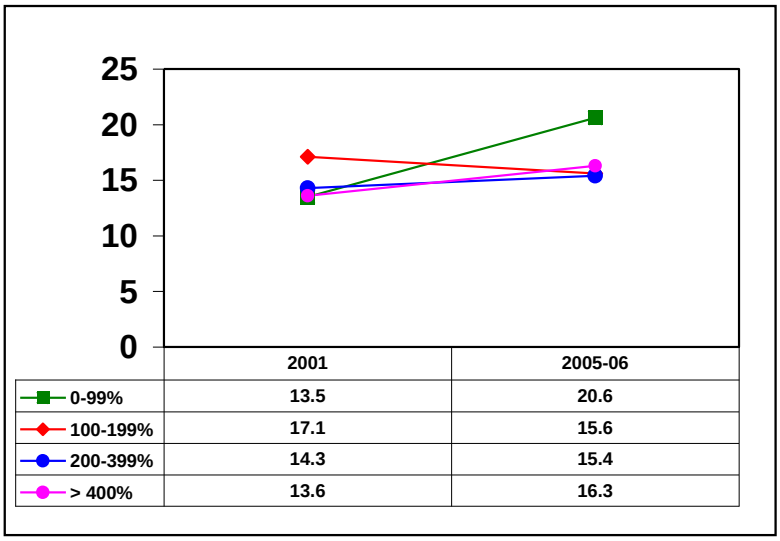


	2001	2005-06
0-5	10.2	10.6
6-11	15	19.2
12-17	17.4	19.9

Source: Child and Adolescent Health Measurement Initiative. *2001 and 2005/2006 National Survey of Children with Special Healthcare Needs*, Data Resource Center for Child and Adolescent Health website. (retrieved [March 6, 2009] from www.cshcndata.org)

The next figure demonstrates the percent of CSHCN in Indiana below Federal Poverty Level (FPL). Only the 100-199% below FPL group decreased between 2001 and 2005-06. All three other groups increased in percent between 2001 and 2005-06.

Figure 43
Children with Special Healthcare Needs by Federal Poverty Level
Indiana: 2001-2006

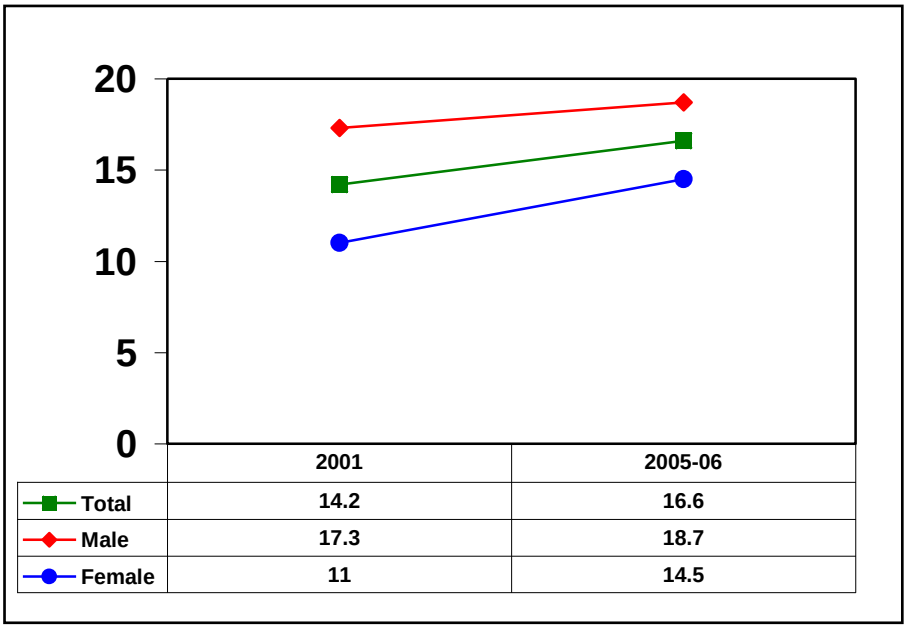


	2001	2005-06
0-99%	13.5	20.6
100-199%	17.1	15.6
200-399%	14.3	15.4
> 400%	13.6	16.3

Source: Child and Adolescent Health Measurement Initiative. *2001 and 2005/2006 National Survey of Children with Special Healthcare Needs*, Data Resource Center for Child and Adolescent Health website. (retrieved [March 6, 2009] from www.cshcndata.org)

Figure 44 shows the difference between males and females between 2001 and 2005-06. In both survey years males had a higher percentage of CSHCN than females and in both genders there was an increase in the percentage of CSHCN between 2001 and 2005-06 in Indiana.

Figure 44
Percent Children with Special Healthcare Needs by Gender
Indiana: 2001-2006



	2001	2005-06
Total	14.2	16.6
Male	17.3	18.7
Female	11	14.5

Source: Child and Adolescent Health Measurement Initiative. *2001 and 2005/2006 National Survey of Children with Special Healthcare Needs*, Data Resource Center for Child and Adolescent Health website. (retrieved [March 6, 2009] from www.cshcndata.org)

Core Outcome Measures -- The Maternal and Child Health Bureau (MCHB) has outlined six core outcome measures to be monitored by maternal child healthcare providers. The following section will describe these 6 outcome measures and Indiana data from surveys regarding these outcomes. The information is from the Indiana State Department of Health, Maternal and Child Health, Children with Special Healthcare Needs. The data are from the President's New Freedom Initiative: State Implementation Grants for Systems of Services of Children and Youth with Special Healthcare Needs, referred to as the Indiana Community Integrated Systems of Services (IN CISS) Grant application, which was completed in March of 2009.

The first outcome is Families Partner in the Decision Making Process and are Satisfied with the Services they Receive. Nationally, 57.4% percent of families believe that they are partners in decision making at all levels and are satisfied with the services they receive. Families in Indiana rate their satisfaction in this area at 59.3%, leaving a significant gap of 41% of families in Indiana who do not feel as though they have an adequate level of partnership or satisfaction with services available to their CYSHCN (2005-2006 NSCSHCN). With an estimated 266,000 CYSHCN in Indiana, this means approximately 100,000 families in Indiana are not satisfied with the services they receive for their children or their level of partnership with those either providing services or making decisions regarding the services. Indiana has traditionally been

above the national average for this component (61.1% in 2001 for Indiana versus 57.5% nationally). (IN CISS Grant, March, 2009).

In 2008, the online IN CISS Advisory Committee survey added to the information gathered from the NSCSHCN and further highlighted the need for parent and professional education around partnership and basic family satisfaction with services. Over half of parents (51%) surveyed expressed that they felt they needed "some" or "a lot of" assistance in order to successfully partner with professionals to advocate for their children. In qualitative questions distributed through the survey, parents indicated that professionals needed more training around communicating with parents and understanding daily life from the parent perspective as well as providing resources so that families could get the services that they needed for their child. Parents also responded that to learn how to be a good partner and to advocate for their children with professionals, they first needed knowledge of resources available and who to work with related to each of these resources. Survey responses reinforced the notion that providing information to parents and professionals alike will increase satisfaction with available programs and services available as well as parents' capability to partner with professionals at every level. (IN CISS Grant application, March, 2009).

The second outcome is CYSHCN Receive Coordinated Ongoing Comprehensive Care within a Medical Home. According to the NSCSHCN, 54.6% of Indiana's CYSHCN receive coordinated, ongoing, and comprehensive care within a medical home. In Indiana only 5.9% indicate they do not have a personal physician or nurse. Nationally 47.1% of CYSHCN receive coordinated, ongoing, comprehensive care within a medical home, while 6.7% indicate that they do not have a personal physician or nurse. The Title V supported CSHCS program and Indiana's Medicaid program assure that every enrolled child has a primary care physician. This may not however indicate that the child has a Medical Home. Coordination with specialty care is problematic for some children. The NSCSHCN indicate that for 20% of Indiana CYSHCN appropriate referral to specialty care is a problem. (IN CISS Grant application, March, 2009).

In the IN CISS Advisory Committee Survey, 61% of parents stated they went to a General Pediatrician for routine care of their child such as a physical or well child check-up. Twenty nine percent went to a family practitioner; 5% went to a specialist for routine care; and 5% obtained care from emergency room or urgent visit site. When asked "how well do you think your child's doctor communicates with other healthcare providers, schools, First Steps Early Intervention, child care providers, case managers/care coordinators, vocational rehabilitation, etc.," 15% said the communication was excellent, 23% said very good, but 36% said only good or poor. (IN CISS Grant application, March, 2009).

The third outcome is Families of CYSHCN Have Access to Adequate Insurance. Nationally, 62% of families believe that they have adequate private and/or public insurance to pay for the services they need for their CYSHCN. Approximately, 61.8% of Indiana families believe that they have adequate healthcare coverage. The 2008 IN CISS Advisory Committee Survey further highlighted the need for families with CYSHCN to have adequate insurance. Approximately, 50% of the families who responded to the question about how easy it had been to find coverage for medical bills said that it had been "very easy", "easy" or "somewhat easy". In response to the question about how well does your medical coverage meet the needs of your child, 76% of the

respondents said that their medical coverage met their child's needs "very well" or "somewhat well". Families using employer sponsored programs have larger out of pocket expenses including premiums, part pays and deductibles. Forty-five per cent reported that they spent between $1,000 -$5,000 a year out-of-pocket for premiums, partial payment and deductibles. (IN CISS Grant application, March, 2009).

The fourth outcome is Children are Screened Early and Continuously for Special Healthcare Needs. Nationally, 63.8% of families believe that their CYSHCN have been screened early and continuously for special healthcare needs compared to 63.1% of Indiana families. Indiana has a well developed Newborn Screening Program. In October 2007, Indiana added cystic fibrosis to the newborn screening panel, thus becoming the fourteenth state to screen for all 29 conditions recommended by the March of Dimes. Annually, greater than 99% of Indiana newborns receive the heel stick screen for metabolic diseases, endocrine diseases, cystic fibrosis, and hemoglobinopathies. Every infant identified by the screen as being at risk for one of the aforementioned conditions has received appropriate diagnostic testing and follow-up services. (IN CISS Grant application, March, 2009).

Indiana's Early Hearing Detection and Intervention (EHDI) program screens 98% of newborns for hearing loss. Eighty percent of these babies receive timely follow-up. Of those babies who are diagnosed with permanent hearing loss, eighty percent receive services through First Steps. A primary objective of EHDI is to ensure that all children are screened before one month of age, identified with hearing loss before three months of age, and receiving direct early intervention services before six months of age. This aggressive timeline makes involvement of the Medical Home even more necessary. (IN CISS Grant application, March, 2009).

The Early and Periodic Screening, Diagnosis and Treatment (EPSDT) (aka HealthWatch) program provided to Indiana Medicaid members younger than 21 years old has a primary goal of ensuring that all children receive age-appropriate, comprehensive, preventive services. Components of the screen and the recommended frequency of the screens follow guidelines set by the American Academy of Pediatrics (AAP). The intent of HealthWatch is to provide early detection and treatment of health issues in order to reduce the risk of more costly treatment or hospitalization that can result when detection is delayed. In 2006, 67% of Medicaid recipient's ages 1-2 years old and 50% of children 3-5 years old received at least one EPSDT screen. (Poverty http://www.nccp.org/profiles/pdf/profile_early_childhood_IN.pdf Indiana Early Childhood Profiles, 2009).

The fifth outcome is Families Claim Their Community-Based Services are Organized Well and Easy to Use. According to the NSCSHCN report of Indiana parents of CYSHCN, 94.3% agree that these services are organized for their use compared to 89.1% nationally. The 2008 IN CISS Advisory Committee Survey generated the following family responses regarding needs for resources and information: a) 71.3% of families answered that they needed information and resources in at least one area; b) 9 of 68 respondents said they had not heard of the Children's Special Healthcare Services Program; c) the most sited source for resource, information and services was other parents with 59 respondents often using this source; and, d) 44% of respondents indicated they had difficulty getting information about Medicaid Waivers, 32% had difficulty getting information about respite care and 18.5% had difficulty getting information

about Medicaid. The survey responses capture a frequent phenomenon, families indicated that they have had a positive experience with services until they become aware of services for which they are eligible but never knew existed. (IN CISS Grant application, March, 2009).

The sixth outcome is Youth with Special Heath Care Needs Receive the Services Necessary to Make Transitions to Adult Life; Including Adult Healthcare, Work, and Independence: Both nationally and in the state of Indiana, 41% of families of CYSHCN do not believe that youth with special heath care needs receive the services necessary to make transitions to adult life, including healthcare, work, and independence. According to the 2006 NSCSHCN, 25.6% of Indiana households have one or more CYSHCN and almost 20% of these children are in the range of 12-17 years of age. Of Indiana families with CYSHCN, 23% had unmet needs in respite care, genetic counseling and/or mental health services and 15% had unmet needs in referrals to specialty care. (IN CISS Grant application, March, 2009). Table 21 is the results of these measured outcomes, comparing Indiana to the US by percentages:

Table 21
Core Outcomes for Children with Special Healthcare Needs
Indiana and United States: 2005-2006

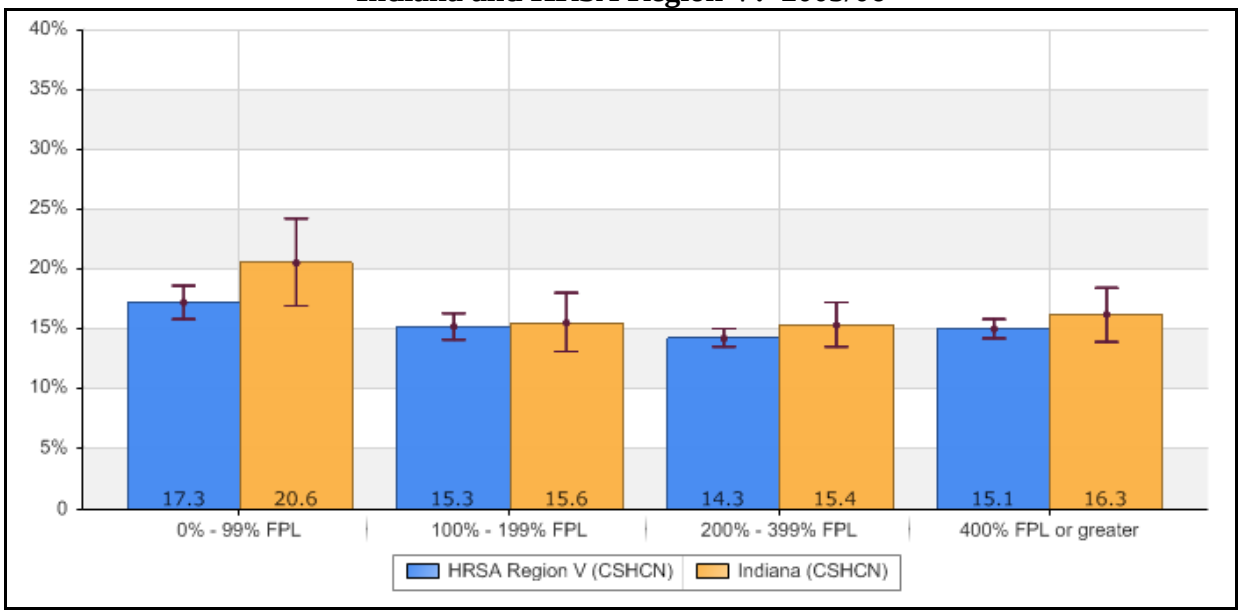
Outcome Criteria	Indiana (%)	United States (%)
CSHCN whose families are partners in decision making at all levels, who are satisfied with the service they receive	59.3	57.4
CSHCN who received coordinated, ongoing, comprehensive care with a medical home	54.6	47.1
CSHCN whose families have adequate or private and/or public insurance to pay for the services they need	61.8	62.0
CSHCN who are screened early and continuously for special healthcare needs	63.2	63.8
CSHCN whose services are organized in ways that families to use them easily	94.3	89.1
Youth with special healthcare needs who receive their services necessary to make appropriate transitions to adult healthcare, work and independence	41.1	41.2

Source: Child and Adolescent Health Measurement Initiative. *2005/2006 National Survey of Children with Special Healthcare Needs*, Data Resource Center for Child and Adolescent Health website. Retrieved [04/14/09] from www.cshcndata.org

The 2005/06 CSHCN report shows a steady increase in the prevalence of children with special healthcare needs, when compared to the 2001 report. The 2005/06 percentage of CSHCN is 16.6, compared to only 14.2 in 2001. The United States prevalence for CSHCN increased a small amount from 2001 to 2005/06, (12.8 to 13.9). Indiana's prevalence is growing at a faster rate than the nation.

There is a concern in the ability of low-income families in Indiana to receive adequate attention for their children with special healthcare needs. Figure 45 demonstrates the fact that Indiana has a greater percentage of CSHCN at all four levels of poverty compared to Region V:

Figure 45
Children with Special Healthcare Needs by Percent Federal Poverty Level
(Ages 0-17 Years)
Indiana and HRSA Region V: 2005/06



Source: Child and Adolescent Health Measurement Initiative. *2005/2006 National Survey of Children with Special Healthcare Needs*, Data Resource Center for Child and Adolescent Health website. (retrieved [04/14/08] from www.cshcndata.org)

Summary – Indiana has a higher percentage of children with special healthcare needs than both Region V states and the national average. Additionally, according to 2006 data, it appears that not only is the prevalence of children with special needs growing faster than the national average but also that more of these children live at poverty levels than other states in Region V, but these differences are not statistically different.

The majority of families believe they are in partnership with healthcare providers in the decision-making process. However, most families stress the need for additional resources and education to facilitate this partnership. In addition, although the majority of children with special needs are in a medical home, some find coordination of specialty care services problematic. While three-fourths of families indicated that medical coverage is adequate only half believed that access to coverage was "very easy", "easy" or "somewhat easy" to obtain.

The majority of families believe that community-based services for children were well-organized and easy to use. However, there was evidence indicating a lack of awareness concerning services for which the families qualified. In addition, many feel there is a lack of services available for transition of youth to adult life in the areas of healthcare, jobs, and independence.

Overview of Priority Needs

Indiana comprehensively evaluated quantitative and qualitative information to develop the State's priority healthcare needs. A summary of the findings related to the priority needs follows.

For pregnant women, priority healthcare needs include decreasing smoking during pregnancy, with emphasis on the Medicaid population; increasing the number of black women having adequate prenatal care; decreasing the proportion of births occurring within 18 months of a previous pregnancy to the same mother; and increasing the number of women who initiate exclusive breastfeeding.

Smoking during pregnancy increases the risk for both a preterm delivery as well as a low birth weight baby. Although the smoking during pregnancy rate has declined in general in Indiana, the rate is still very high for certain populations or locales. Activities to address this issue include providing training and materials to prenatal Medicaid providers; assessing/comparing counties with highest and lowest smoking rates to determine successful anti-smoking strategies; and working with Indiana Tobacco Prevention and Cessation (ITPC)/Indiana Preventing Smoking in Pregnancy Initiative to explore successful cultural and literacy appropriate educational messages targeted to low income women.

During the period from 2002 to 2006, the percentage of women, overall, receiving prenatal care within the first trimester declined from 80.5% to 77.6%. The black percentage decreased from 68.6% to 65.6% over this time period. To address the low level of entry into prenatal care for black women the new focus will target counties having a lower percentage of black women entering prenatal care in the first trimester. Initiatives will include free pregnancy tests, development of a Premature Birth Initiative especially for African American women, and collaboration with the National Fatherhood Initiative on "Train the Trainer" workshops.

Short interval pregnancies are an important issue because such pregnancies increase the risk for adverse outcomes, such as low/very low birth weight babies; premature births and small for gestational age infants. Activities to address birth spacing will include training providers and clinic staff on preconception best practices and new family planning methods; application of quality improvement techniques to increase opportunities for screening and health promotion to women, before, during and after pregnancy; and integration of reproductive health messages into existing state health promotion campaigns

Although breastfeeding rates have consistently increased over the past several years to an overall rate of 66.5%, Indiana's breastfeeding rate still falls below not only the national average but also the Healthy People 2010 goal of 75%. Black women, in particular, have low levels of breastfeeding rates. Efforts to increase the rates of breastfeeding in Indiana during the next five years will focus on continued collaboration with state-wide groups to support local coalitions; initiation of a recognition program acknowledging Baby Friendly Hospitals; and collaboration with partners to build tiers of support for breastfeeding from community drop-in centers providing support to mothers to education on breast milk storage for day care centers,

Two problems concerning infants require a special focus: prematurity rates and accidental suffocation under one year of age. Although prematurity birth rates are at about the national average, prematurity rates for blacks are more than double that of the overall rate. Creation of a statewide plan that addresses prematurity issues is proposed with the Preterm Birth Executive Group driving system change through policy, standards and tools. Increasing both public and provider awareness as to all aspects of prematurity is also a goal.

The infant mortality rate for 2007 was 7.5 deaths per 1000 live births, higher than the Healthy People 2010 goal of 4.5 deaths. Reducing the number of suffocation deaths in infants will impact this mortality rate. MCH activities to impact this number will center around communication of safe sleep practices/updates to nurse managers/nursing staff and provision of parent education. MCH will also work with First Candle, Indiana Perinatal Network, and local community organizations in the four largest counties to conduct training and educational sessions, as well as distribute safe cribs to those who need them.

Concerns involving children and adolescents center around lead poisoning, STIs, obesity, and social-emotional heath of very young children. Although the number of confirmed cases of lead poisoning in children (below age 72 months) has declined, lead poisoning remains a silent menace that can cause irreversible damage. MCH will continue to work with Medicaid to increase the number of children screened and to work with the Indiana Lead and Healthy Homes Program (ILHHP) to increase the number of homes remediated.

Reduction in the number of sexually transmitted infections (STIs) is another state objective. Strategies to reduce the STI numbers include providing education and materials to providers treating adolescents, conducting a needs assessment to determine barriers to condom use among adolescents in high-risk populations, and partnering with the Indiana Family Health Council to increase screening for STIs.

Obesity in high school age children is also a state concern. Recent data indicate that 13.8% of youth to have a BMI greater than the 95^{th} percentile for their age and sex. MCH will be partnering with the Division of Nutrition and Physical Activity in the deployment of the Indiana Healthy Weight Initiative that targets increased consumption of fruits and vegetables, decreased consumption of sugar-sweetened drinks and increased physical activity.

Addressing issues pertaining to the social-emotional health of children under the age of 5 is the final initiative. Foremost among these issues is the lack of qualified service providers to treat children is this age bracket. Children at risk for social, emotional, and behavioral problems include cases of neglect, homeless children, children of refuges/immigrants, and children of deployed military personnel. The proposed state initiative targets capacity building to increase the number of service providers qualified in this area.

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B.4. MCH Program Capacity by Pyramid Level

Like many states, Indiana is suffering as a result of the recession that has forced bankruptcies, business closings, and loss of jobs. Also, the Indiana General Assembly passed a bill in July 2009 to cap property taxes across the state. All of these factors have led to a decrease in tax revenue to sustain State programs, and significant budget cuts with all State and local agencies. All State agencies in Indiana have experienced budget cuts from both federal and State sources, resulting in fewer funds available for Indiana's MCH populations. Additionally, Indiana is near the bottom of all states in receipt of federal health dollars. Indiana ranks 48th for amount of Federal funding for public health from U.S. Centers for Disease Control and Prevention (CDC) FY 2009, 50th for Federal funding from HRSA, and 47th for the amount states provide for public health services. The lack of funding not only impacts the public health services that can be provided, but also means that Indiana does not have the personnel to compete with other states for federal funding.

MCH and CSHCS realize that collaborations and partnerships are imperative to ensure that targeted populations have adequate preventive and direct care services. MCH and CSHCS are always alert to forming new partnerships with other state agencies, healthcare providers and organizations, insurers, consumers and advocacy groups to combine resources to maximize affordable, accessible, culturally competent healthcare services for our citizens.

The following narrative is about the State's capacity to care for pregnant women, mothers, infants, children, CSHCN, and youth at all levels of the Title V Pyramid. Appendix 3 contains a listing of funded projects at all pyramid levels.

B.4.A. Direct Healthcare Services

Direct healthcare services are an essential to ensure the health and well being of the maternal and child health populations. In analyzing these services, we looked at the adequacy of the healthcare system to provide primary, secondary, and tertiary care. These services, however, can not be looked at in isolation. Social determinants also have a tremendous impact on maternal and child health populations and must also be factored into a comprehensive approach to improving health outcomes. MCH has adopted a life course perspective and will be factoring social and economic determinants of health into its continuing assessments and initiatives.

Capacity to Provide or to Assure Availability of Direct Healthcare Services

Indiana's capacity to provide or assure availability of direct healthcare services depends upon four main factors including (1) MCH's and CSHCS's ability to fund direct healthcare services where they are needed, (2) Indiana's policies regarding healthcare financial coverage for services needed by the MCH populations, (3) MCH's and CSHCS's ability to work in partnership and collaboration to influence the availability of direct healthcare services where they are needed, and (4) MCH's and CSHCS's ability to put Hoosiers together with existing resources. Each of these factors is discussed in the following paragraphs.

(1) MCH's Ability to Fund Direct Healthcare Services -- Indiana is limited in the amount it has to invest in healthcare as described in the introduction to this section of the needs assessment. In addition to reduced resources, Indiana faces other issues in the ability to deliver services to its MCH population. These challenges include: a maldistribution and/or shortage of service providers; limited services in rural areas; and a lack of hospitals in some counties. This situation has led to many counties and areas within a county to be designated medically underserved areas (MUAs) and/or health professional shortage area (HPSAs). In an effort to make a greater impact on the health and wellbeing of our populations, MCH focuses on collaboration with insurers, implementation of population-based health initiatives, and creation of a stronger infrastructure that supports the needs of Indiana's women of childbearing age, pregnant women, mothers, infants, children, and adolescents.

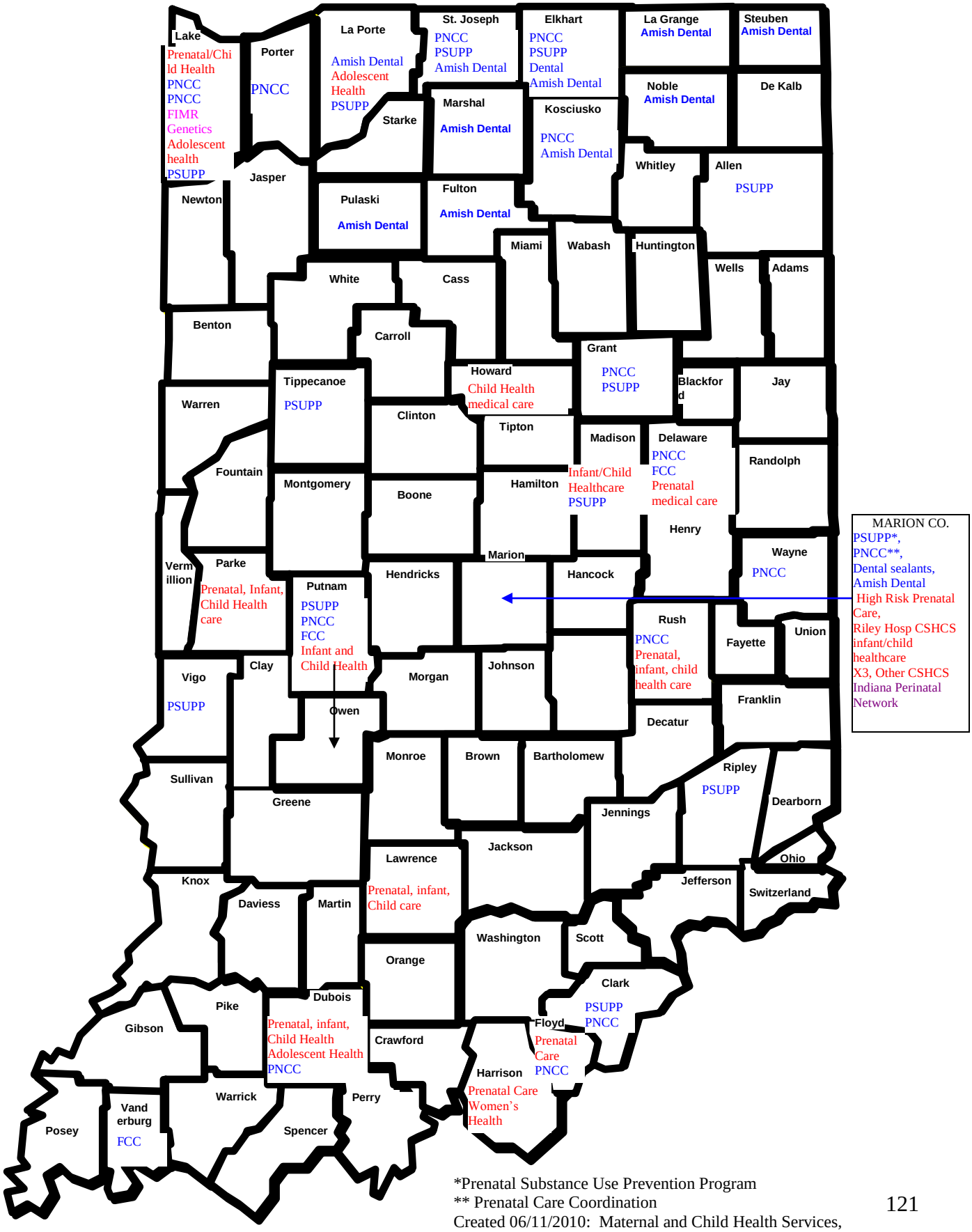
To support the delivery of services to the MCH population, in FY 2010-2011 Indiana Title V is funding 38 direct care services in 24 counties; including 11 prenatal medical care clinics; 11 infant healthcare clinics; 10 child healthcare clinics; 4 adolescent healthcare clinics, and 2 Dental clinics. Through these direct care services 26,016 pregnant women, 89,607 infants, and 73,030 children and adolescents were served with Title V funding. Title V also provides support to the Indiana Family Health Council, the State Title X agency, which administers 34 family planning clinics. Through a partnership with Indiana Family & Social Services Administration (FSSA) and the Department of Child Services (DCS), the Indiana Family Health Council also receives Title XX and TANF funds for family planning.

In addition, the Title V Block Grant designates 30% of the Title V funding to be used for services to Children and Youth with Special Healthcare Needs (CYSHCN). The Children's Special Healthcare Services (CSHCS) Program uses this funding in addition to a state appropriation to pay for state staff salaries, direct healthcare services, provide care coordination and implement systems improvement initiatives for Indiana's CYSHCN and their families. Since the last 5-year Needs Assessment the CSHCS Program has provided direct healthcare services reimbursement to over 45,000 CYSHCN. The program provides supplemental medical coverage to participants age birth to 21 years of age whose family income before taxes is no greater than 250% of the federal poverty level; for 23 medical conditions that are expected to last at least two years, will produce disability, disfigurement, or limit the child's ability to function; require special diet or devices; or without treatment would produce a chronic disabling physical condition. Examples of qualifying conditions are Apnea, Arthritis, Cerebral Palsy, Chromosomal Disorders, Endocrine Deficiencies and Oncologic Disorders. In additional to providing payment for the participant's qualifying medical condition the program provides diagnostic evaluations, comprehensive well child care, immunizations, prescription drugs, routine dental care, specialty care and equipment and community referrals and information. The CSHCS Program has experienced significant reductions in the state funding due to the discontinuation of funding from property taxes.

To further address the needs of the MCH population, in 2010 the Indiana State Department of Health is funding 46 community health centers (CHCs) with over 85 locations throughout Indiana. The Office of Primary Care (OPC) provides CHC support with funds from the Master Tobacco Settlement as authorized by the Indiana General Assembly in March 2009. Nineteen community health centers are designated Federally Qualified Health Centers (FQHC). The

CHCs and their branches are located in 43 of 92 counties. Ten counties have more than one CHC. There are an additional 58 Rural Health Clinics in Indiana. (See Figure 1 for map of projects.)

Figure 1
MCH Funded Projects for 2010-2011



*Prenatal Substance Use Prevention Program
** Prenatal Care Coordination
Created 06/11/2010: Maternal and Child Health Services, ISDH

One of the challenges that impact the delivery of services is the disproportionate concentration of service providers in the metropolitan or metropolitan statistical areas. Indiana has a mix of major metropolitan areas with concentrations of industry and commerce. However, according to the 2009 Indiana State Rural Health Plan, sixty percent of Indiana counties (55 of 92) are located in rural or non-metropolitan areas. Twenty-six of the 55 rural counties in Indiana are partially or completely medically underserved or have shortages of health professionals. Data from the Indiana Healthcare Professional Development Commission indicate that for 2009, there were 3,622 primary healthcare providers in Indiana. The following table indicates the practice area for these providers.

Table 1
Primary Care Providers by Practice Area

Practice Area	Number of Providers
Family Practice/General Practice	2,312
Internal Medicine	1,034
Pediatricians	276
Total Primary Healthcare Providers	**3,622**

Source: Indiana Healthcare Professional Development Commission.

A review of information provided by the Workforce Development Subcommittee of the Indiana University Healthcare Reform Study Group (2007) cited current levels of primary care physicians and non-physician clinicians in each county as a rate per 100,000 residents in 2005. Thirty-four rural Indiana counties with critical access hospitals, designated to receive Medicaid reimbursement, were compared with the averages of counties comprising Metropolitan Statistical Area center counties. The rate of providers per 100,000 in the Critical Access hospital counties was 24/100,000 compared to 250/100,000 in the metropolitan statistical area (MSA) centers. The maps that follow further illustrate the healthcare shortage areas and distribution of providers by county.

Many communities across the state experience a shortage of health professionals in most disciplines from medical assistants to medical doctors**.** According to the October, 2007 ISSUE BRIEF "Indiana's Health Professions Workforce Shortages & Maldistribution" by the Development Subcommittee of The Indiana University Healthcare Reform Study Group**,** the assessment of need reveals that Indiana has a shortage of 1000 primary care physicians. In addition, 81% of urban counties and 98% of rural counties in Indiana fail to meet the U.S. benchmark for an adequate ratio of primary care specialists per 100,000 population which affects services to children with special healthcare needs. There are 6,000 unfilled nurse positions in our hospitals alone and 65% of urban counties and 87% of rural counties in Indiana fail to meet the U.S. benchmark for an adequate ratio of RNs per 100,000 populations. If current trends continue, by 2020, we will need almost 2,000 additional primary care physicians and we will be short 20,000 registered nurses (RNs) in Indiana. Because of this shortage, Indiana cannot utilize RNs to fill the gaps caused by the shortage of primary care physicians. In addition, 12 counties are without obstetrics services. The following Table provides information as to the current number of healthcare providers by area of service.

Table 2
2009 Healthcare Provider Capacity by Practice Area

Practice Area	Current Number of Practitioners
Family and General Practitioners	2,355
Internal Medicine	896
Obstetricians and Gynecologists	542
Maternal Fetal Medicine	21
Neonatal-Perinatal	73
Pediatricians	281
Pediatrics subspecialty	6
Physician assistants	810
Registered nurses	56,500
Certified Nurse Midwives	N/A
Nurse Practitioner	N/A
Medical assistants	N/A
Dental hygienists	3,990
Dental assistants	5,810
Dentist, general	1,710
Dietitians and nutritionists	1,220
Genetics Providers	65
Adolescent Medicine	24
Allergy	107
Audiologists	240
Ophthalmology	276
Optometrists	670
Otolaryngology	106
Pharmacists	6,660
Psychiatrists	114
Substance Abuse/Behavioral Disorder Counselors	980
Mental Health Counselors	1,260
Addiction Medicine	241
Emergency Medicine	2033

Source: Occupations in Department of Workforce Development 5/14/2010, and Health Professions Bureau.

The limited availability of services in rural areas is another issue impacting the MCH population. Across the country, residents of rural areas have traditionally had less contact and fewer visits with physicians. Although 20% of Americans live in rural areas, only 9% of the nation's physicians practice in rural areas and only 10% of specialists practice in rural areas. In Indiana, 22% of the population lives in rural areas. According to the Indiana Hospital Association over half (54%) of Indiana counties are now designated as medically underserved. When communities lack health professionals who are willing and able to provide healthcare within a reasonable travel distance of the community, residents tend to delay seeking the most cost-effective care available and often seek primary care in emergency departments, where care is expensive and inconsistent. With health professional shortages, healthcare facilities are not able

to fully staff their departments, putting an excess burden on existing staff and significantly increasing the cost of care they deliver.

Lack of hospitals in some counties also impacts service delivery. In Indiana there are 133 hospitals. According to the 2009 Indiana Rural Health Plan, 35 of these hospitals are critical access hospitals (CAH) or hospitals certified to receive cost-based reimbursement from Medicare to improve financial performance and reduce hospital closures. Sixteen of the counties in Indiana have no hospital according to the Indiana Hospital Association.

Another concern is the level of obstetric care in hospitals around the state. Ninety-four of Indiana's hospitals are birthing facilities. The following table illustrates the hospital self-reported level of obstetric/neonatal care reported by Indiana Perinatal Network (IPN) in a 2008 survey.

Table 3
Number of Birthing Facilities by Level of Care

Service Type	**Count by Level of Care**		
Number of OB services by level of care	Level I	Level II	Level III
	30	54	14
Number of nursery/NICU services by level of care	Level I	Level II	Level III
	34	42	23

The majority of hospitals providing Level II services for both OB and nursery services were located in metropolitan areas while Level I hospitals were in rural counties. Although there has been an increase in the number of hospitals providing Level III NICU services, their patient counts are small. There are only 2 Level IIIC hospitals in Indiana and both are in Marion County. Children requiring specialty NICU services must be transferred to Marion County or nearby states to obtain the appropriate level of care.

From a tertiary care perspective, the availability of trauma services is also an issue. Trauma centers are ranked according to the American College of Surgeons (ACS) by the level of services provided. Level I provides the most comprehensive service and Level III the least. In Indiana, the majority of trauma services are concentrated in the three largest cities (Indianapolis, Fort Wayne, Evansville). This means that a large portions of the state, especially in northwestern and southeastern Indiana, have limited or no trauma services. Hoosiers may have to travel to neighboring states (Chicago, Illinois; Cincinnati, Ohio; Louisville, Kentucky) to receive trauma services. The following Table indicates the availability of ACS-verified trauma services and level.

Table 4
ACS-Verified Trauma Centers in Indiana

Hospital	City/Location	Level of Service	Expiration Date
Deaconess Hospital	Evansville	Level II	10/30/11
St Mary's Medical Center	Evansville	Level II	1/3/11
St Mary's Medical Center	Evansville	Level II – Pediatric	8/24/12
Lutheran	Fort Wayne	Level II	3/3/12
Lutheran	Fort Wayne	Level II – Pediatric	3/3/12
Parkview	Fort Wayne	Level II	6/12/10
Parkview	Fort Wayne	Level II – Pediatric	6/12/10
Clarian Methodist	Indianapolis	Level I	2/24/12
Indiana University/Wishard Memorial Hospital	Indianapolis	Level I	9/21/10
Riley Hospital for Children	Indianapolis	Level I – Pediatric	12/14/12
Memorial Hospital	South Bend	Level II	10/5/10

MCH also evaluates health professional shortage areas (HPSAs), medically underserved areas (MUAs) and areas of health disparity to determine availability of services. Seventeen of the 24 Title V funded counties are designated either partial or full primary care HPSAs/MUAs. For 2009, Indiana had a total of 99 designated Primary Care HPSA shortage areas with 20 counties (of 92) identified as a county primary care HPSA (http://bhpr.hrsa.gov/shortage/). Many of these counties are in rural areas. In addition, five counties are targeted by MCH for black health disparities. In the five targeted disparity counties, 22 CHC sites provide services in Marion County, 7 in St Joseph County, 7 in Lake/Porter Counties, 3 in Vanderburgh County, and 1 in Allen County. The Trust for America's Health, "Short Changing America's Health", report gives Indiana a rank of 27 among all states for Primary Care shortage areas.

In addition to primary care services, HPSAs can also be designated due to lack mental health and/or dental services. Indiana has 46 Mental Health HPSAs within 43 counties and 39 Dental Care HPSAs within 12 counties are designated as Dental Health Professional Shortage Areas. During the 2005 Title V needs assessment 25 counties were designated Mental Health Professional Shortage Area in whole or part. In 2009 Indiana saw a dramatic increase in mental health need and 43 counties are now designated Mental Health Professional Shortage Areas in whole or part. HRSA lists the population needing services in the Mental Health Professional Shortage Areas as 1,289,241, only 329,326 were served, leaving 959,915 underserved.

Indiana has seen a decrease in Dental Health Professional shortage areas from 17 counties in 2005 to 12 counties in 2009 designated as Dental Health Professional Shortage Areas (DHPSA). Tippecanoe County shows the greatest need with a score of 25. The designated population for Indiana's DHPSA areas is 264,702, of which 72,600 are served, leaving 192,102 underserved.

A designation of Medically Underserved Area (MUA) can further define an area of reduced services. An MUA designation depends on four characteristics: the ratio of primary medical care physicians per 1,000 population, the infant mortality rate, the percentage of the population with incomes below the poverty level, and the percentage of the population age 65 or over. As of January 2009, according to the Health Resources and Services Administration (HRSA)

website (http://bhpr.hrsa.gov/shortage/muaguide.htm), there are 56 MUA designations throughout the state of Indiana. Twenty-three of these designations are entire counties. Thirteen of the MUA counties are Governor Chosen Medically Underserved Population Counties, meaning the governor recommended the designation and the federal government approved them.

Figure 2
Primary Healthcare Professional Shortages

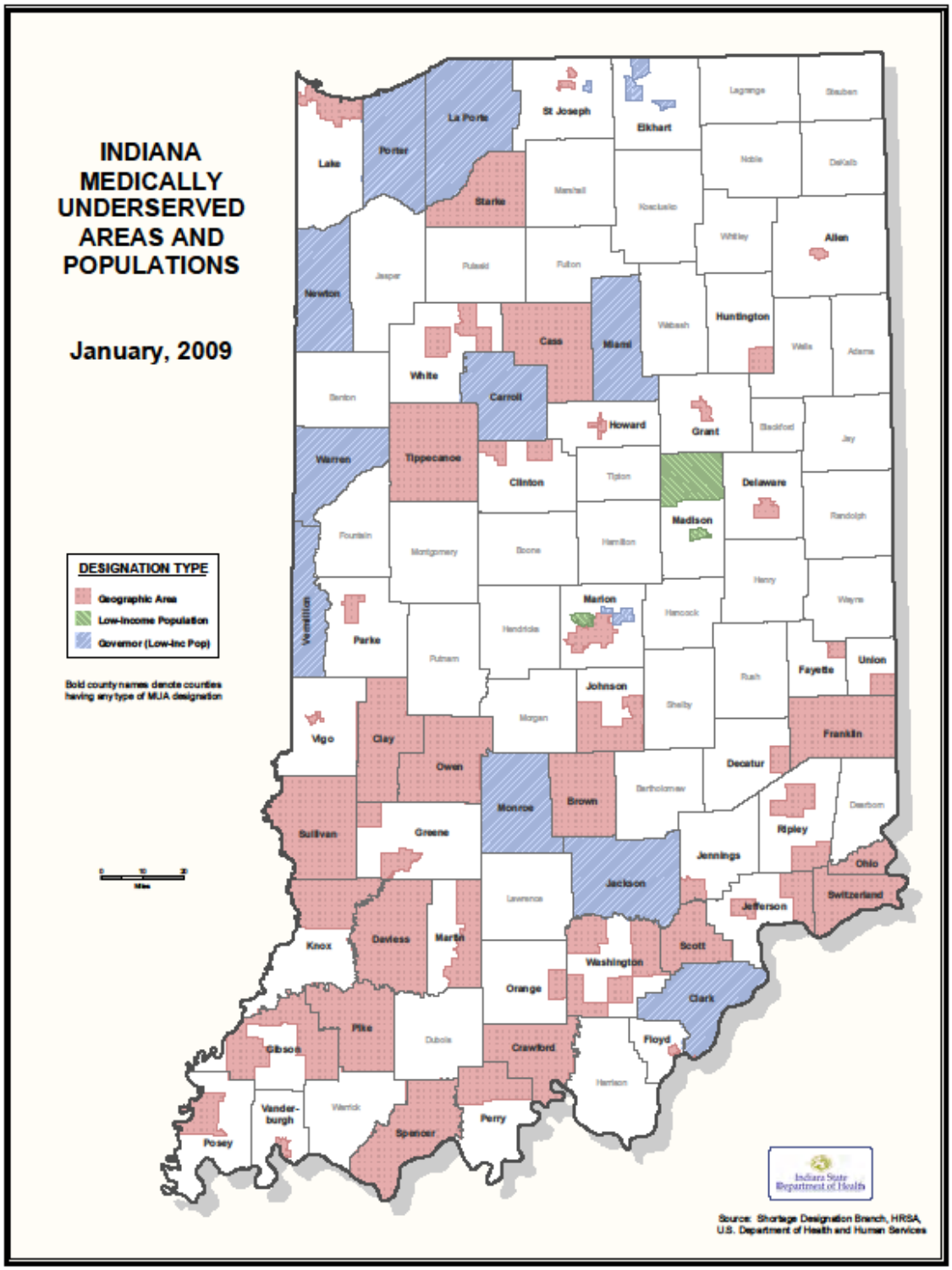


Figure 3
Dental Health Professional Shortage Areas

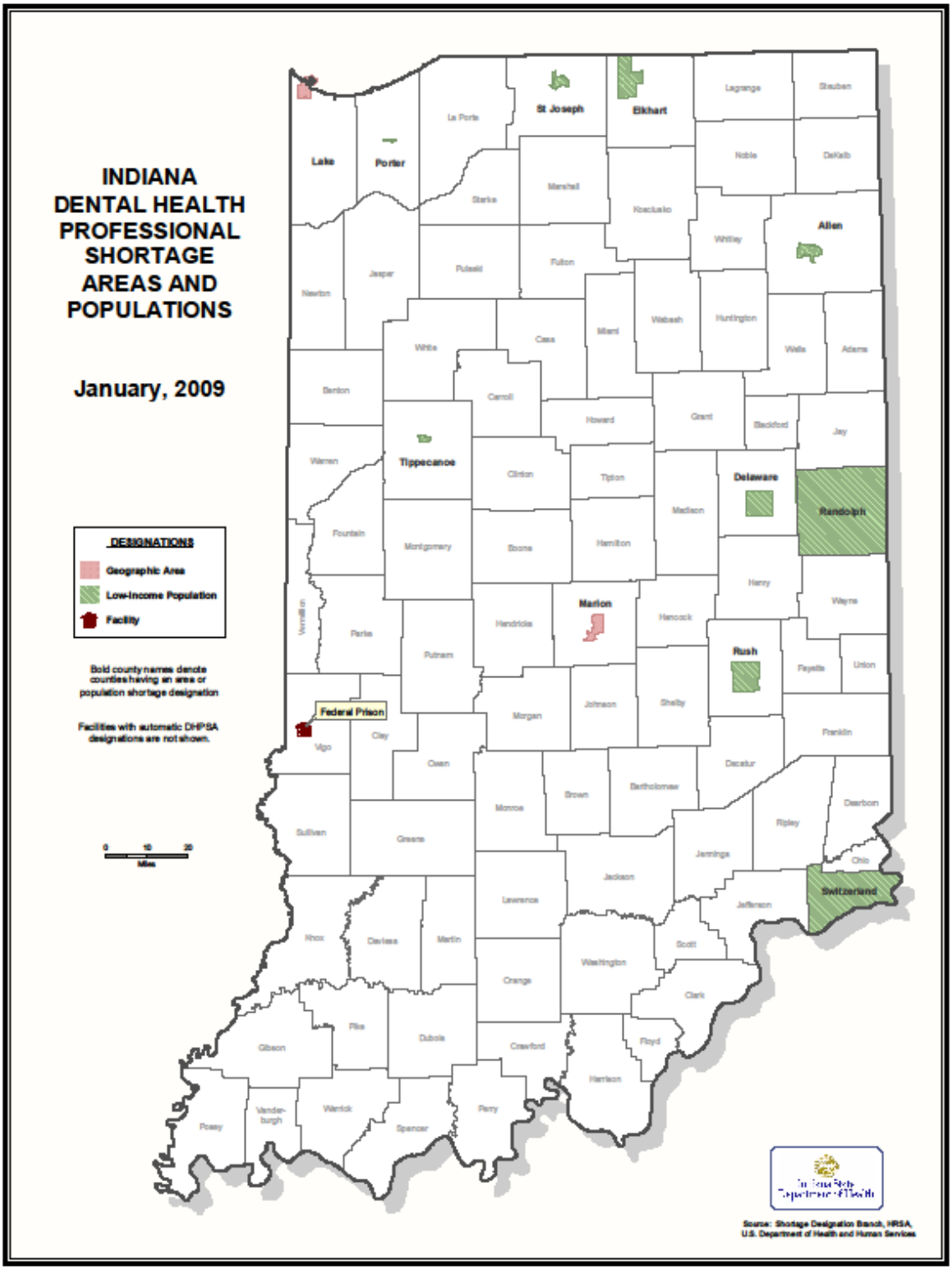
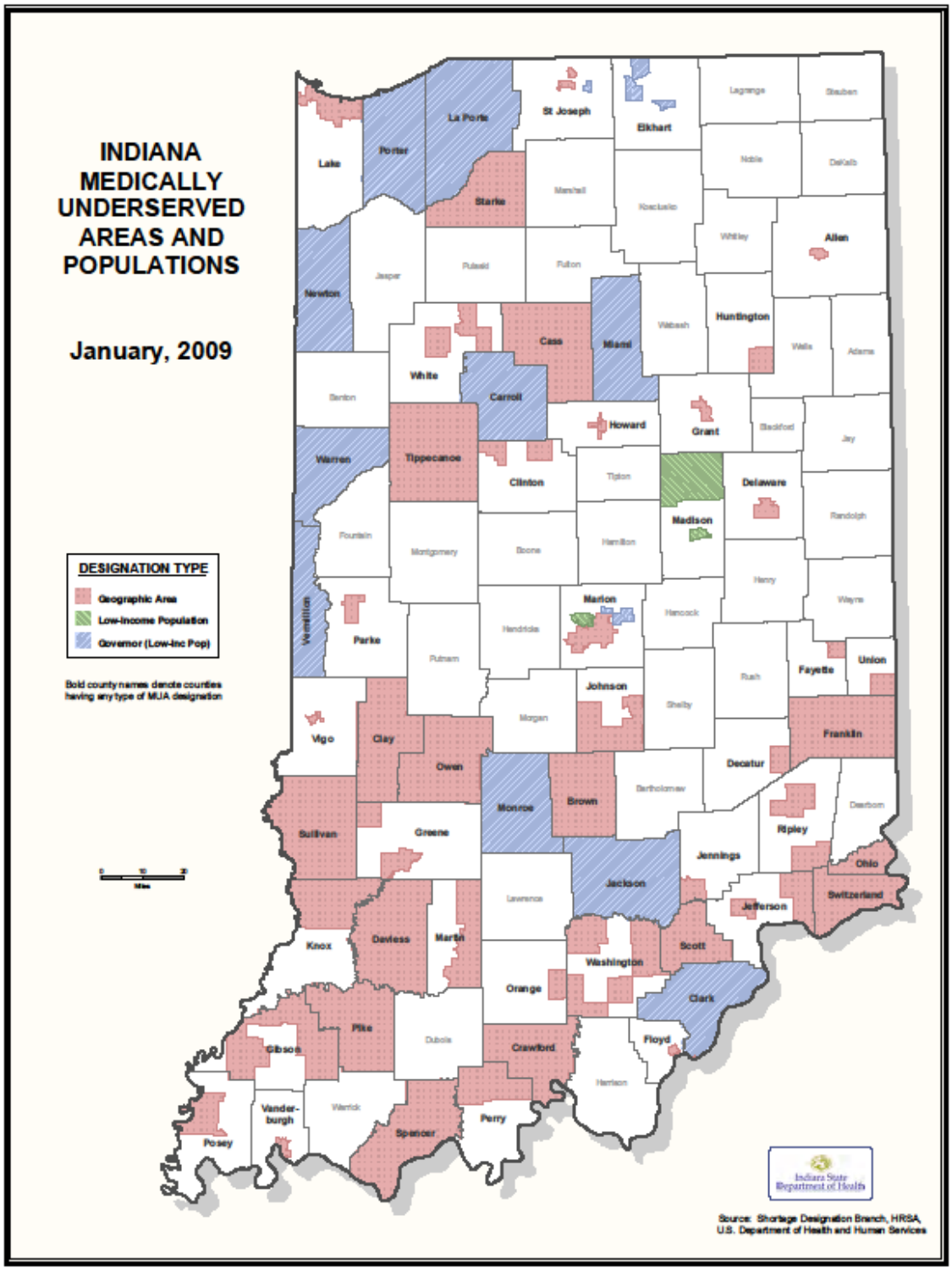


Figure 4
Medically Underserved Areas



State's Priority Concerns regarding availability of healthcare and health-related services-prevention/primary/specialty

As discussed in the State Overview of the Title V grant application, an overriding issue is the effectiveness of our interventions and programs. Many of our health status indicators and health outcome indicators over the past years have remained stagnant or gotten worse. While Indiana is not alone in this phenomenon, it is an issue that we are addressing.

As part of our analysis of the effectiveness of our interventions and programs, Indiana has identified a number of concerns regarding the availability of healthcare and health related services. These concerns include:

1. Improving State MCH data and epidemiological analysis capacity
2. Reducing racial and ethnic disparities in health status among pregnant women and children by increasing adequate support services and community resources.
3. Assuring provider practices meet best practice guidelines to decrease late preterm deliveries
4. Improving the availability of appropriate adolescent, family planning, and preconception/interconception services
5. Develop Oral Health Program

In 2008 Indiana submitted a family planning waiver request to CMS to provide ongoing Medicaid benefits for up to two years to women who deliver while on Medicaid. The waiver has still not been approved at this time. CMS is reluctant to approve a new Medicaid program until Indiana's Modernization Enrollment System is overhauled and errors decreased.

A study commissioned by the Indiana State Office of Rural Health to examine rural recruitment and retention programs for the healthcare workforce found that there are federal, state, and local programs in Indiana to recruit and retain health professionals where they are needed; however, these programs have not had the expected impact on addressing this problem.

The Oral Health Program is a partner with Seal Indiana, a statewide mobile dental program directed by the Indiana University School of Dentistry (initially partially Title V funded), which provides preventive oral health services to children who do not have access to dental care. This program's objectives include promoting the use of sealants and decreasing the proportion of children with untreated dental disease. During the 2009 fiscal year, the Dental Sealant Project provided 2796 examinations and sealants to Indiana Head Starts, Texas Migrant Council (TMC), Title I Schools, and community shelters. The Indiana Family Help Line (IFHL) provides referrals for the sealant program and other dental services. Request for dental referrals was the most common reason for IFHL calls. Currently, the IFHL referral database contains 478 dentists accepting Medicaid and 328 of those treat children.

B.4.B. Enabling Services

Strengths and Unmet Needs

MCH strengths center around successful partnering with other agencies. One example is the partnership with the Indiana Family & Social Services Administration (FSSA) in the enrollment of children and pregnant women in insurance programs. In addition, Indiana is experiencing an increase in collaborative efforts among healthcare systems and providers. Indiana has a low rate of uninsured population at 11.9%.

Indiana's Children's Health Insurance Program (CHIP) program has been successful in enrolling eligible children in need of insurance coverage. In Calendar year 2009, enrollment reached an all-time high of 79,307, an increase of 6.8% over the prior year. The Indiana CHIP program has been successful in lowering the uninsured rate among children in families below 200 percent of poverty to 8.6%, a rate that is half of the national average (17.3%) for this population. MCH collaborates with Indiana Covering Kids and Families, the not-for-profit organization doing Indiana's CHIP outreach program. All Title V funded clinics are encouraged to collaborate with state Covering Kids representatives for training, educational materials, program updates and referral resources.

Indiana opted to implement a "combination" CHIP program similar to 20 other states. The combination design contains two components. CHIP Package A is the Medicaid expansion portion and covers children in families with incomes up to 150 percent of the federal poverty level (FPL) who are uninsured and not already eligible for Medicaid. CHIP Package C covers children in families with incomes above 150 percent up to 250 percent of the FPL who do not have other health insurance. Children at the higher income level (200%-250% FPL) began enrolling in October 2008. Prior to this, CHIP Package C covered children up to 200 percent FPL only.

Medicaid, with MCH and MCO's collaboration, is also focusing more on our maternal population. In July 2009, Medicaid implemented presumptive eligibility without waiting for a waiver. The program has increased the number of low income women entering prenatal care. The presumptive eligibility (PE) program has also allowed MCH and Medicaid to have better tracking information as to when women enter prenatal care. With PE, physicians are required to submit a Notification of Pregnancy (NOP) form to Medicaid for reimbursement. These data are analyzed by the Office of Medicaid Policy & Planning (OMPP) and shared with MCH. The following Table itemizes the number of women entering care during the first five months of implementation.

Table 5
Prenatal Entrance into Care from Presumptive Eligibility Program

Time Period	Week/Trimester Entering Care		
	1st Trimester (1 – 12 weeks)	2nd Trimester (13 - 27 weeks)	3rd Trimester (28+ weeks)
7/1/09 – 9/30/09	1059	1461	244
10/1/09 – 11/30/09	692	744	104

In addition to monitoring insurance coverage for women and children and providing outreach to promote enrollment in public insurance programs, Indiana MCH and Medicaid MCOs provide case management or enabling/supportive services.

To further elaborate on the MCH-Medicaid collaboration, a unique partnership has been formed. One of the outcomes of the quality improvement initiative started by Medicaid was the identification of the importance of home visitation to high risk pregnant women. Due to the transient nature of the MCH populations in the disparity counties, home visits were deemed essential to improved outcomes. Previously, Managed Care Organizations had conducted only telephone interviews with women providing minimal outcome information. However, with the partnership between Medicaid and MCH, all MCOs will be using the same outcome reporting procedures to collect data on pregnancy outcomes. These outcome procedures were developed by MCH in conjunction with a statewide prenatal care task force.

The new outcome reporting forms created by the Medicaid-MCH collaboration will provide information on the pregnancy outcome at the time of delivery compared to the data initially collected at the first prenatal visit (Notification of Pregnancy form). The data will be matched with birth certificate information and shared with OMPP for further program monitoring. In addition, the information collected is also being shared with other divisions within the ISDH. These include Diabetes, Department of Nutrition and Physical Activity, and the Office of Women's Health.

Another quality assurance initiative involves prenatal smoking. The neonatal quality group is composed of OMPP, ISDH/MCH, Medicaid MCOs, Medicaid physician advisors, Indiana Tobacco Prevention & Cessation (ITPC), and Indiana Perinatal Network (IPN). Analysis of 2007 OMPP claim data and birth certificate information identified a linkage between smoking and Medicaid population. Pregnant women on Medicaid smoked at a rate of 30% compared to 17.9% in pregnant women not on Medicaid in Indiana. In 63 of Indiana's 92 counties the smoking rate ranged from 30% to 48% among the pregnant Medicaid population. The neonatal partnership group partnered with ITPC, Clarian Tobacco Center, IPN, and the Indiana Women's Center for Excellence to offer provider training on prenatal smoking cessation around the state. A subcommittee of the neonatal quality group developed standardized messages on smoking during pregnancy to be included in the Welcome Package distributed to all pregnant women at MCO enrollment.

Another successful partnership is with Indiana Hands & Voices. The Early Hearing Detection and Intervention (EHDI) Program has contracted with Indiana Hands & Voices since December 2008 to provide parent-to-parent follow-up and institute the Guide By Your Side (GBYS) curriculum with families of identified children. Two parent consultants (one bilingual) conduct follow-up activities, such as phone calls and letters, to families referred to EHDI after receiving a did not pass newborn hearing screening result. The parent program coordinator administers and monitors GBYS activities in effort to ensure that every family receives appropriate services and support.

The unmet needs of the MCH population in Indiana, again, center on the lack of or inadequate insurance, poor availability of providers, and inadequate services. Although the presumptive

eligibility program has increased access to prenatal care, the state Medicaid modernization still has problems. Medicaid modernization has been an attempt at computerizing and streamlining the enrollment process for benefits. However, problems occurred with lack of computer access and skills as well as literacy levels and lack of interpreters. In addition, state law requires that Medicaid co-locate with the entitlement programs in the Division of Family Resources (DFR). This has caused some problems with termination of Medicaid coverage in women and children who qualify for both insurance benefits and entitlement programs. In an attempt to resolve the issues associated with this modernization program a hybrid system has been created. In combination with the computerized enrollment, case managers have been returned to the DFR offices. This hybrid system is currently being piloted in Evansville/southwestern Indiana and reports indicate that the original modernization issues have been resolved.

Availability of providers is another issue to be addressed with respect to entrance into prenatal care. Of 92 counties in Indiana, 5 have no providers participating in presumptive eligibility due to concerns over reimbursement issues. (This includes at least one of the most populated counties in the state.)

Inadequate levels of service is a third area of unmet needs. Service levels are impacted in the areas of transportation and family planning services. The lack of/need for transportation for medical services is one of the main reasons for calls to the Indiana Family Helpline (IFHL). Although information and instructions concerning transportation are given in the Welcome Packet provided by Managed Care Organizations, women have difficulty with these instructions. There is some indication that a literacy barrier may be an issue as well as the lack of social-networking capabilities of the organizations involved.

Accessibility to family planning services remains an issue. According to the Alan Guttmacher Institute, which tracks contraceptive services by state, Indiana ranked 48th in the nation in service availability, laws and policies and public funding. Data for 2008 showed that 1,366,660 women of childbearing age resided in Indiana and that 725,340 of these women needed (or wanted) contraceptive services and supplies. Of those women wanting contraceptive services, 353,750 required publicly funded services. However, for the year 2008, only 109,480 women, or 31% of those needing publicly-funded contraceptive services received them. A barrier for the provision of family planning services continues to be Indiana's lack of state funding. In 2010, in an attempt to increase the capacity of Family Planning services, MCH collaborated with Title X, Title XX, and Division of Children's Services (TANF funds) to combine all funding sources for family planning in order to reach a larger proportion of women in need of services. MCH is also making family planning a state priority with State Performance Measure # 6

MCH also encourages all of its funded infant, child and adolescent health projects to provide Early Periodic Screening Diagnosis and Intervention examinations. Prenatal care coordinators and Healthy Family Home Visitors also encourage families to get these services for their children. ISDH receives Medicaid data from the Office of Medicaid Policy and Planning (OMPP). In 2009, 79.2% of Medicaid enrollees under the age of one received at least one initial periodic screen. The OMPP also reported that in 2009, 47% of State Children's Health Insurance Program (SCHIP) enrollees under the age of one received at least one initial periodic screen. The main reason for the difference between Medicaid's and SCHIP's results is that there

are very few individuals under the age of one year enrolled in the SCHIP program. In 2008 only 102 individuals less than one year of age were enrolled in SCHIP. According to OMPP, the percent of EPSDT eligible children aged 6-9 years who have received any dental services during the year is 60.3% in 2009. This percentage is consistent with the trend of small increases since 2004. One of the main reasons for calls to the Indiana Family Helpline is to find a dentist who will see children on Medicaid.

Priority Concerns Including Financial Access and Cultural Acceptability

Indiana's priority concerns include lack of physicians in rural areas; lack of culturally competent healthcare systems and providers; lack of a regionalized perinatal system; and insufficient specialty and preventive services for children with special healthcare needs.

Loss or lack of physicians in rural areas is a major concern in Indiana. According to the 2009 Indiana Rural Health Plan, the critical access hospitals (CAHs) are experiencing annual personnel turnover rates that range from 1% to 12%, with an average of 5%. On average, five positions are open at each critical access hospital each week. The positions hardest to recruit are primary care physicians, advanced practice nurses, and specialty care physicians. An earlier 2007 Issue Brief (Indiana's Health Professions Workforce Shortages & Mal-distribution) indicated that only 2% of rural counties in Indiana met the US benchmark for the number of primary care specialists. Although federal, state and local programs such as J-1 visa waiver and student loan repayment exist to recruit and retain health professionals, the current implementation of these programs has not been effective. Some evidence indicates that healthcare professionals tend to return to their "roots" to practice, so efforts are increasing to recruit students from the areas of greatest need. One effort to meets the needs of the rural community is the Rural Health Program offered jointly by Indiana State University and Indiana University School of Medicine. This program is designed to increase opportunities in medicine for those interested in rural health. (www.indstate.edu/preprof/rhp.htm)

Lack of culturally competent health systems and providers is a second key concern. Insensitivity to cultural issues can lead to significant disparities among races and populations. Per the Maternal and Child Health Bureau (MCHB), cultural competence is the knowledge, interpersonal skills, and behaviors that enable a system, organization, program, or individual to work effectively cross-culturally by understanding, appreciating, honoring, and respecting cultural differences and similarities within and between cultures.

Indiana faces several challenges in the area of cultural competency. These include not only addressing problems related to race and ethnic disparities but also issues associated with resettlement communities. Indiana's Hispanic population continues to increase every year. In addition, Indiana is currently the home to both African and Burmese resettlement communities. Although both communities face the challenge of integration into an unfamiliar culture and healthcare system, each community has a unique set of issues. The African Health Net Project is a healthcare program, provided by the African Center in Indianapolis that works with the African community to provide solutions to healthcare challenges. The African Center provides the resources and staff expertise to assist in address the challenges that prevent Africans from integrating into American society.

There are two Burmese settlements in Indiana, one in Ft. Wayne and the second in Indianapolis. This population faces a slightly different set of issues, which include not only a language barrier but also cultural traditions. Although resettlement communities allow citizens to maintain their cultural identity, they also discourage learning the language of the adopted society. This can lead to isolation. A second issue is the prevalence of such diseases as tuberculosis, HIV, and hepatitis. These diseases are more prevalent in the Ft. Wayne population. However, cultural traditions and the language barrier have made these diseases difficult to treat. In addition, cuts in funding, scheduled to occur in 2010, will cause these diseases to go untreated.

To address cultural competency in the area of racial and ethnic disparities, MCH partners with the Indiana Minority Health Coalition (IMHC) and the Indiana Perinatal Network (IPN). IMHC has developed cultural competency training that is provided regionally throughout the state. Indiana Perinatal Network (IPN) also offers a cultural awareness course, "Habits of the Heart".

MCH attempts to address cultural competency by requiring all MCH grantees to attend training. However, project performance reviews by staff and polling numbers from IPN suggest that training in cultural competency has not been a priority. In addition, turnover at many of the clinics frequently leads to staff not trained in cultural sensitivity. There is some anecdotal evidence to suggest that lack of cultural competency training is impacting the time of entry into prenatal care.

The Indiana Minority Health Coalition conducted a series of town hall meetings during April, 2009 for Minority Health Month. MCH staff was present at several of the town hall meetings. The lack of physicians taking new pregnant women on Medicaid was an identified issue in early access to care. In South bend one physician verified that no other physicians were accepting pregnancy Medicaid except him and he also stated that if a pregnant woman lost her Medicaid for some reason the physician would refuse to see them without payment. This doctor stated he has taken on patients that were let go by their prenatal care provider in mid-pregnancy.

Another issue raised at some meetings was the confusing Medicaid enrollment system which has become computerized. Many low income families do not have access to a computer, do not understand how to use one, and enrollment forms are in English only requiring them to have an interpreter with them. Local libraries were to provide accessibility to the web based system but barriers exist in many counties because most libraries limit computer use time to 30-45 minutes. It is taking some persons an hour or more to complete the application online. When their 30 minutes is up the computer shuts off and they loose their application. Librarians in larger cities have told persons they do not have time to help them fill out the enrollment form or that it is not their job.

Barriers to All Levels of Care Including Habilitation and Rehabilitation

Title V staff work closely with several divisions in the Family & Social Services Administration (FSSA). The Division of Disability and Rehabilitative Services is the parent agency for First Steps (Indiana's 0 – 3 Early Intervention Program), which partners with CSHCS to use a combined enrollment procedure for children with special needs. First Steps also provides intervention services to children identified by positive Newborn Screening (NBS) and children who do not pass the Universal Newborn Hearing Screening and/or children at risk for later

acquired hearing loss. Vocational Rehabilitation Services, under FSSA, also provides referrals and partners with CSHCS.

However, some barriers to care may exist in communication and coordination of services between the tertiary care hospital and the local facilities. In addition, many of the specialty clinics are located in the major cities so travel is a barrier. The major tertiary specialty hospital for children in Indiana, Riley Hospital for Children, is located in Indianapolis which, although centrally located, is a three to four hour drive from northwest and southwest Indiana.

Impact of Emerging Issues

The emerging issues that MCH will continue to follow and/or address in the next five years center around mental health, economic conditions, and cultural awareness. One issue that may have an impact on mental health is the rising level of adolescents reporting depression.

An increase in adolescent depression is an issue to address. The Youth Risk Behavior Survey (YRBS) has shown a slight but steady increase in adolescents reporting prolonged sadness. In addition, youth were also rated as "more likely" to attempt suicide in the latest (2009) "Injury and Violence" results for Indiana. The following table illustrates these findings.

Table 6
Changes in Injury and Violence-Related Behaviors

Changes in Injury/Violence-Related Behaviors	**Percentage Youth**				**Compared to 2003-07 students in 2009 were**
	2003	2005	2007	2009	
Felt sad or hopeless almost every day for at least two weeks during the past 12 months.	25.5	27.3	27.5	28.1	Just as likely
Attempted suicide during the past 12 months that had to be treated by a doctor or nurse	1.6	3.5	2.9	3.6	More likely

Source: Indiana State Department of Health (www.in.gov/yrbs)

Economic conditions impact both the providers of healthcare services and those seeking services. Since the previous needs assessment, five years ago, there has been an increase in children living in poverty. In 2005, according to "America's Health Rankings", the poverty level for all persons under the age of 18 was 18.5% for Indiana and 19.0% for the nation. (Indiana had an overall rank of 34th in 2005.) However, the percentage of children in poverty has increased by 70% to 23.3% for all persons under age 18 who live in households at or below the federal poverty level (FPL). Indiana now ranks 44th among all states for child poverty according to the United Health Foundation in 2009 (America's Health Rankings). This impact of this trend is seen in the increase in numbers of children enrolled in Indiana's CHIP program. This trend is also impacting providers.

Providers have also been impacted by the economic conditions causing increased levels of children in poverty. The growing and changing demand for stop gap services, such as immediate care, has left providers struggling. Large proportions of Title V funded programs and State

supported community health centers have reported rising demand and challenges to providing care. Families seeking services at some clinics in Indiana now have to wait up to two months for an appointment, compared with 1–2 weeks before the recession. In some cases, primary care centers have found themselves with no other option but to close sites, (East Chicago Community Health Center), or cut back services, severely threatening access to services for women and children in need. Several Title X clinics are now operating with only two staff, instead of the usual three-person complement. The Gary Maternal and Child Health Clinic has had hours of service cut and may lose some staff. Economic conditions impacting service availability may ultimately lead to increased emergency room visits.

Lack of cultural awareness and tolerance may also be an emerging issue. Increased cultural intolerance, as evidenced by bias-motivated incidents, may have an impact on the accessibility of healthcare services as well as injury prevention efforts. Bias-motivated incidents are defined as behavior that constitutes an expression of hostility against a person or property of another because of the victim's race, religion, disability, sexual orientation or ethnicity/national origin, according to the anti-defamation league. Of those incidents reported, an increase in prevalence appears most noticeable in northwestern Indiana. According to the Research and Service Center at Valparaiso University, 90% of the bias-motivated cases tracked, targeted blacks, Hispanics and those of Middle Eastern descent. Indiana remains one of the few states in the country without legislation on hate crimes.

Linkages to Promote Provision of Services and Referrals Between Primary, Secondary and Tertiary Care

Currently, Indiana does not have a formalized referral system between primary, secondary and tertiary services for prenatal care. However, preliminary discussions have occurred and there are plans to address this issue in the coming year. Hospital systems have begun to develop referrals linkages among their hospitals by level of care but those hospitals that are not part of a big system will need assistance.

In addition, one of the Indiana Community Integrated Systems of Services (IN CISS) subcommittees is focusing on enhancing systems of care for children and youth with special needs via creating community-based systems of care that are organized so families can easily use them.

Existing Resources for Providing Community-based Care, Specialty Care Through Pediatric Centers, Community-based Specialty Clinics

Examples of existing resources for community-based care include the MCH-funded and the community health clinics, the hospital-based pediatric specialty clinics, school-based adolescent health clinics, and the family planning program.

Community Health Centers – The Office of Primary Care administers the Community Health Center (CHC) operating funds. State-funded centers promote the development and operation of community-based primary care services, especially in medically underserved areas. These centers provide a comprehensive scope of services that include primary care for all aspects of the

life cycle from infants and children to adolescents and adults. Qualities of comprehensive care include affordable (based on income), accessible, available, appropriate and acceptable to those residing in the community. Services provided include both primary and preventive care. Access to additional services is coordinated via memorandums of understanding with other agencies. Currently, specialty care for pediatrics is provided at hospital-based clinics. Case managers from Riley Hospital for Children, the tertiary care facility, work with the primary care provider in the community to ensure the needs of the family and the special healthcare needs of the child are met. (For further information about community health centers see the State Overview.)

School-Based Wellness - The Maternal and Child Health Block Grant provides partial funding for three school-based adolescent health clinics that serve approximately 2,400 students annually. These clinics are designed to meet the health needs of adolescents without a regular source of medical care. Clinics offer adolescents comprehensive preventive health services including physical exams, diagnosis, treatment and referral for illness or chronic health problems, nutritional assessment and counseling, psychosocial assessment and intervention, and health education. Clinics strive to minimize the negative aspects of risk-taking behaviors, seek to meet the adolescents' unique health and developmental needs, and promote healthy lifestyle choices and practices conducive for responsible adulthood.

In addition to the Title V-funded clinics, Learning Well, a non-profit organization, provides integrated, preventive and primary healthcare services to students in several Marion county schools. The goal is to provide school-based health clinics that are open to all students during school hours. These services are provided by collaborative efforts between area hospitals, schools, and local foundations.

The Coordinated School Health Program was implemented in 2003 from Centers of Disease Control (CDC) in partnership with the Indiana Department of Education. Funding for this grant ceased in 2008. However, portions of the initial project have been continued in the area of school wellness as a part of the ISDH Division of Nutrition and Physical Activity and in the Indiana Tobacco Cessation and Prevention (ITPC) group.

Indiana Family Planning Partnership is a partnership among the Indiana Family Health Council (IFHC), the Indiana State Department of Health (ISDH), the Indiana Department of Child Services (IDCS) and Family Social Services Administration (FSSA). These agencies have agreed that the coordinated funding of family planning services in Indiana would increase access to services by patients, ensure quality of services, and minimize administrative overhead. MCH coordinated the project so that all funds have been granted to the IFHC, Indiana's Title X agency. IFHC contracts with local agencies in locations with the highest risk populations to provide comprehensive reproductive health and family planning services to the citizens of Indiana. The goal of the coordinated funding is to use the public family planning funds as efficiently and effectively as possible to target the women most in need, to provide complete services to all low income women, to maximize Indiana competitive position for family planning funding regionally, and to minimize the amount of paperwork for the providers. MCH partners with Title X to provide comprehensive services for women at seven main sites and several satellite clinics. These services range from annual exams, family planning and preventative care to pre-conception services. Future services will extend to interconception care.

B.4.C. Population Based Services

MCH sponsors or directly manages a number of population-based programs that impact all MCH populations and participates collaboratively with population-based initiatives with other divisions of ISDH as well as other agencies. The following narrative describes these programs.

The Newborn Screening (NBS) Program includes the population-based services of newborn metabolic (heel stick) screens, the Early Hearing Detection and Intervention (EHDI) Program, and other NBS programs that ensure children who are confirmed to have one of the conditions included on the newborn screen get appropriate follow-up care. The NBS program is funded through a NBS fee collected for each birth and through a federal (HRSA) grant; the EHDI program is supported by federal grant funding from HRSA and the CDC as well as being supported by the NBS fund.

Indiana Code 16-4-17 requires the ISDH to maintain a centralized Newborn Screening Program (NBS) that provides diagnosis, follow-up management, genetic counseling, and support, including equipment, supplies, formula, and other materials, for all infants identified as having one of the designated disorders. Out of 89,347 births in 2008, more than 99% of newborns received initial screens. Follow-up was conducted on 100% of infants with positive test results and 160 confirmed positives received treatment and follow-up.

Through the NBS program, a blood test (by heel stick) is done on all infants shortly after birth to test for certain genetic disorders. Indiana is currently screening for 45 conditions plus hearing loss. In order for a screen to be valid, the specimen must be collected at least 48 hours after birth and 24 hours after the first protein feed. The only acceptable justification for a valid screen not being performed is a religious objection by the parents.

Follow-up is done to obtain repeat screens on all abnormal and unsatisfactory screens. It is critical to immediately locate physicians and parents when a repeat screen is required. If the responsible birthing center or physician is unable to obtain the repeat screen, additional follow-up is initiated by Indiana University Medical Center Newborn Screening Laboratory (IU NBS Lab). IU NBS Lab is the laboratory elected through competitive bidding by the Indiana State Department of Health (ISDH) for processing specimens. If further follow-up is needed, the ISDH Newborn Screening Program requests assistance from the area Public Health Nurse and local health officials.

Infants confirmed to have one of the designated genetic disorders are referred to the appropriate state-contracted follow-up provider, including a Biochemical Geneticist, a Pediatric Endocrinologist at the Indiana University Medical Center, a Hematologist at the Indiana Hemophilia and Thrombosis Center, or an accredited Cystic Fibrosis Center. Besides the aforementioned entities, the ISDH NBS Program works collaboratively with the IU NBS Lab, Sickle Cell grantees, and the Genomics in Public Health Program to ensure all infants diagnosed with any of the designated disorders receive appropriate follow-up and treatment.

The Early Hearing Detection and Intervention (EHDI) Program is administered through the Newborn Screening Program at the Indiana State Department of Health. A primary purpose of

the EHDI Program in Indiana is to positively impact the lives of children and their families through early identification of hearing loss and subsequent follow-up. Indiana EHDI is focused on program improvements that will allow for consistent outcomes in 1-3-6 (months).

Newborn hearing screening was mandated by law in Indiana in 1999 and became effective in the summer of 2000. The Newborn Screening Law states that "every infant shall be given a physiologic hearing screening examination at the earliest feasible time for the detection of hearing impairments." The only authorized reason for refusal of newborn hearing screening is for religious reasons. Audiologists are required by law to report the results of follow-up testing to EHDI and generally report results on EHDI's Diagnostic Audiology Evaluation (DAE) form. As of October 2006, audiologists are also required to report children birth to age three who are found to have a hearing loss to the Indiana Birth Defects and Problems Registry (IBDPR).

In 2008, approximately 98% of the more than 89,000 occurrent births in Indiana received a hearing screening. Of those children, 1,914 did not pass the final (second) screening and were referred for a diagnostic audiology evaluation. Of those children who did not pass the final screen, the hearing status of 32% of the group was confirmed before age 3 months. Of those not passing, 292 (15.3%) were lost to follow-up or lost to documentation, and another 7.2% were found to have permanent hearing loss. Of those children found to have permanent hearing loss, nearly 85% were known to have participated or be enrolled in early intervention services. Seventy percent were enrolled or had been in the State's Part C program. In addition to the 137 babies who were born in 2008 and found to have permanent hearing loss, 54 babies born prior to 2008 were diagnosed with hearing loss during the 2008-09 calendar year. Indiana has continued to screen the majority of its babies and has made excellent progress in decreasing the number of children who are lost to follow-up between newborn hearing screening and recommended diagnostic follow-up.

The Genomics Program strives to increase the awareness and understanding of genetic conditions and to ensure that all infants born in Indiana each year with birth defects or genetic conditions have access to genetic services. The goals of the program are: (1) to educate the public and healthcare providers about available services, genetic disorders, birth defects, and advancement in the field of genomics; (2) to educate families of children with genetic conditions or birth defects; (3) to ensure families receive equal access to services, regardless of socioeconomic status; and (4) to help meet the unique healthcare needs of affected children.

The goals of the Genomics Program are accomplished with the assistance of genetics clinics around the state. The Maternal and Child Health (MCH) Block Grant partially supports five regional genetics centers, some of which sponsor additional outreach clinics.

The Genomics Program has also developed and marketed, in part through federal funding, four curricula options (written for middle school/introductory high school, high school science classes, upper level high school science classes, and school faculty and staff) for teaching about fetal alcohol spectrum disorder. These are available on the ISDH website (http://www.in.gov/isdh/23935.htm) and have been marketed to middle school and high school science teachers throughout the state.

The Early Intervention Including Part C of Individuals with Disabilities Act (IDEA) has coordinated with MCH and First Steps (Indiana's Early Intervention Program) for many years. There is close coordination in the NBS UNHS/EHDI Program because all babies who fail the hearing screening are referred by the hospitals to the First Steps Systems Point of Entry (SPOE). The EDHI regional audiologists work with the SPOEs to obtain diagnoses for the babies who have not passed their newborn hearing screens. In addition, through the UNHS/EHDI Program, service coordination providers that will become First Steps providers are trained to work with families with infants newly diagnosed with hearing loss. The First Steps Director participates in the Indiana Genetics Advisory Committee and both of the NBS Advisory Committees. First Steps also shares data with CSHCS and UNHS/EHDI.

The MCH Adolescent Health Services Program is comprised of initiatives that serve the Hoosier adolescent population, ages 10-24. These projects include the Indiana RESPECT program, the Youth Risk Behavior Survey, the Indiana Coalition to Improve Adolescent Health and school-based clinics (described further under School-Based Wellness).

Indiana RESPECT (Reduces Early Sex and Pregnancy by Educating Children and Teens)- an adolescent and teen pregnancy prevention initiative which funds youth-serving organizations to provide sexual abstinence education and pregnancy prevention education programs for youth and their parents. Indiana RESPECT provides technical assistance and ongoing training to all of its grantees. Additionally, Indiana RESPECT has a media campaign which currently includes educational materials, promotional items, and a web site: www.indianarespect.com In 2009, RESPECT funded 12 projects to implement Indiana RESPECT programming to adolescents

Youth Risk Behavior Survey (YRBS) was developed by the Division of Adolescent and School Health at the Centers for Disease Control and Prevention to monitor priority health risk behaviors that contribute to the leading causes of mortality, morbidity, and social problems among youth in the United States. The YRBS includes national, state, territorial, tribal, and local school-based surveys of representative samples of 9th through 12th grade students. These surveys are conducted by ISDH every two years, usually during the spring semester. The YRBS results are used to monitor progress in achieving leading health indicators, create awareness of the extent to which youth practice health risk behaviors, develop programs that address health risk behaviors practiced by youth and set program goals, support health-related legislation, and seek funding. Indiana has been successful in gathering weighted data for years 2003, 2005, 2007 and 2009 to allow for the analysis of trend data and disseminating information to the public (www.in.gov/yrbs).

The Indiana Coalition to Improve Adolescent Health (ICIAH) is comprised of individuals and representatives from agencies and organizations serving youth in a variety of capacities who share the common goal of improving the health of adolescents and emerging adults. The Indiana State Department of Health is a proud member of this coalition. The mission of the Indiana Coalition to Improve Adolescent Health is to empower adolescents and emerging adults (ages 10-24) to choose lifestyle behaviors that will improve their quality of life and address their unique health needs. For more information about the coalition, visit www.inadolescenthealth.org.

The Maternal Child Health Services Perinatal Health Program has primary responsibility for promoting and improving the health of our state's pregnant women and infants with special attention given to those of low income or with limited availability of health services. This program is charged with prevention of maternal and infant deaths and other adverse perinatal outcomes; elimination of health barriers and disparities; assurance of early entry into quality prenatal care, and the improvement of the infrastructure of perinatal systems of care. In collaboration with local health departments, hospitals, private providers, professional organizations and community groups the program works to assure adequate, equal and accessible services for all pregnant women and their infants.

As a part of this program, MCH sponsors the Indiana Perinatal Network, Inc (IPN). The MCH Perinatal Consultant works with this staff on both the population-based and infrastructure building levels of the pyramid. The Infant Health and Survival Program (formerly called the SIDS Program) is housed at IPN. This program has developed educational information for both consumers and providers. First responders are also trained on how to respond to an infant death. Information concerning safe sleep practices and policies, support groups and other resources are found on the IPN website at http://wwwindianaperinatal.org. In addition, First Candle has received a grant from the Bill & Melinda Gates foundation to focus on the prevention of infant deaths. One of the states targeted is Indiana. MCH staff participate in this project to make safe cribs available to families who need them.

The Office of Minority Health (OMH) continues to promote "Shower Your Baby with Love Baby Showers". Local minority health coalitions have held annual showers in counties including Elkhart, Marion, and Vigo. Medically underserved pregnant women, their partners and family members receive information on accessing prenatal care, healthy pregnancies, infant safety, and child development. Materials on community resources and successful parenting are also provided to participants along with typical baby shower items.

In order to assist local communities in meeting the challenges related to the growing Hispanic/Latina population, hospitals around the state continue to use "Bridging the Gap" a Basic Training for Medical Interpreters. The 40-hour course trains local health providers to serve as bilingual interpreters in healthcare settings.

MCH continues to partner with the Indiana Division of HIV/STD to promote HIV testing via the "One Test, Two Lives" campaign. Hoosiers are encouraged to "take the test and take control:" by determining their HIV status. One of the targeted populations is pregnant women.

MCH, and WIC continue to participate in the Indiana Breastfeeding Alliance, a subcommittee of the ISDH-funded Indiana Perinatal Network. The Title V-funded State Breastfeeding Coordinator along with a MCH Nurse Consultant participate on this team. This group continues to support the creation of local breast feeding coalitions. One current focus is the education of child care facilities in the proper storage of breast milk. Provider protocols and consensus papers on this and other perinatal health topics are available on the website (www.indianaperinatal.org).

The Free Pregnancy Test Program, a population-based program that provides enabling education and services works in combination with both the perinatal and adolescent health

programs to reduce the State's high Infant Mortality Rate (IMR), increase the low percent of women beginning prenatal care in the first trimester of pregnancy, improve access to primary, prenatal and family planning care, and encourage women to complete their education. The ISDH Free Pregnancy Test Program targets women of child-bearing age, women without high school diplomas and those with low-incomes.

The program provides free pregnancy test kits to participating agencies that outreach to women of childbearing age. These agencies offer services and referrals for the target population whether they are pregnant or not and provide ISDH/MCH data on clients who are tested. The number of participating agencies has decreased from 96 to 91 agencies. These agencies include twenty-six (26) local Health departments, twenty-one (21) WIC clinics, six (6) family planning clinics, the rest are Community Health Centers and other not-for-profit agencies The number of counties where these agencies are located has decreased from 60 to 58 counties or 64% of Indiana's 92 counties. However, the demand for the tests increased from a low of 11,129 in 2007, to 13,474 in 2008, and 14,382 in 2009. These agencies provide free documentation of pregnancy required for prenatal Medicaid application. Approximately 37% of tests each year are positive, and 67% of clients with positive tests did not intend to become pregnant at the time of the test. However, only 17% of women with positive tests were using a family planning method to avoid becoming pregnant. .

The Indiana Family Helpline (1-800-433-0746) is ISDH's Title V statewide, comprehensive, bilingual, health and human service helpline. It is a population-based program that provides information and referral services to any caller who calls the toll free number. It is available Monday through Friday from 7:30 AM to 5 PM with voice mail available after hours, weekends and holidays. Trained communication specialists provide information referrals, consumer education, advocacy and follow-up to callers on a variety of topics including, but not limited to early prenatal and child healthcare, Medicaid, WIC, food pantries, shelters, utility assistance, libraries, vocational and GED programs, transportation services and oral health services.

The Helpline's mission is carried out in collaboration with local communities, other state agencies, organization and individuals concerned with the health and well being of Indiana families. During FY 2009, the IFHL responded to 29,005 calls.

The Indiana Childhood Lead Poisoning Prevention Program, (ICLPPP) is a program that spans the pyramid levels. Lead screens are available to all at risk children at local health departments, WIC clinics and other public clinics in high risk areas. ISDH supplies the test kits to the agencies. Lead test samples are analyzed at no cost to the provider. Local Health Department personnel are trained and provide environmental risk assessments to families of children with high lead levels (enabling level). The remainder of ICLPPP is infrastructure building. By the end of FY 2009, 64,221 children age 0 to 7 years were tested. Of the children tested a total of 371 were confirmed as having an elevated blood lead level equal to or greater than ten (10) micrograms per deciliter of blood. The percentage of confirmed elevated children was 0.57%.

The Indiana Lead Safe Healthy Homes Program (ILHHP) program works in coordination with ICLPP to conducting Training on the revised administrative rule 410 IAC 29: *Reporting,*

Monitoring, and Preventive Procedures for Lead Poisoning. These training sessions include regional trainings, one-on-one training with local health department staff and the annual Indiana Lead-Safe and Healthy Homes Conference. ILHHP works with the Indiana Lead-Safe Housing Advisory Council and the Indiana General Assembly to (1) introduce comprehensive lead legislation focusing on retaliatory evictions; (2) contact local health departments; and (3) identify issues surrounding lead hazards in rental property.

ILHHP works to improve monitoring of the local responsibilities under the case management rule including environmental follow-up on lead poisoned children. ILHHP continues efforts to increase the percent of Medicaid screened children by encouraging Medicaid reimbursement for testing, case management, and environmental inspection. ILHHP improves lead program data collection and analysis including: data collection and comparisons with other programs such as Medicaid and WIC, use of the I-LEAD web application to produce consistent and effective risk assessments and environmental follow-up, development of an enhanced database of medical and case management information. ILHHP increases awareness and outreach efforts including monitoring and disseminating product alerts from the Consumer Product Safety Commission bulletins and other sources of information regarding consumer product safety issues.

The Indiana State Department of Health Immunization Program is 100% federally funded through the grant process and CDC/National Immunization Program (NIP) branch. The program participates in the Vaccines for Children (VFC) and Fund 317 program. The VFC program for private providers is contractually awarded. The current contractor is the Delaware County Health Department. They employ two supervisors, field investigators, Hepatitis B Case managers, Health Educators, and clerical staff to process vaccine orders, shipping inventory for public and private providers. A staff epidemiologist is also on staff to perform statistical analyses of immunization rates, trends, and other duties as assigned.

The immunization program hosts the annual "Fall Awards" conferences. During these conferences there are educational sessions presented by nationally renowned people. Also the program conducts an awards ceremony. Providers who achieve an immunization rate of 90% to 94% are presented with a certificate. Providers who achieve an immunization rate of 95% to 100% are presented with a plaque. These immunization rates are determined by the field staff using the CDC's software application for CASA/AFIX. There are also special awards presented; these categories vary from year-to-year.

The immunization program has established links with numerous partners and stakeholders across Indiana. These include the Indiana Immunization Coalition, WIC, Lead data through the Regenstrief Institute, Vital Records, school corporations (public & private), Medicaid & Medicaid HMOs, private insurance providers for HEDIS reporting. All MCH funded clinics that provide immunizations participate in this program and a MCH staff consultant sits on the Immunization advisory committee.

Indiana's current Injury Prevention Program is a mixture of injury epidemiology, trauma, sexual violence prevention, adolescent health, and an Injury Prevention Advisory Committee comprised of injury prevention specialists from injury programs statewide. ISDH has appointees to State Child Fatality Review, Suicide Prevention Coalition, and Indiana Department of Education (IDOE) School Safety Committee which all have injury prevention aspects. The program is expanding during 2010 and 2011 and an injury prevention director is going to be

hired. The injury prevention program has written many data reports including *Injuries in Indiana* and *Suicide in Indiana*.

Efforts to reduce the burden of injury and violence require a workforce that is knowledgeable and skilled in prevention. However, until recently, there had not been any initiative in Indiana to ensure that professionals possessed the necessary competencies in injury and violence prevention. The Indiana Injury Prevention Advisory Council and the Indiana Trauma Taskforce offered a four-day Violence and Injury Prevention Core Competency Training Course for the first time in September and October 2009. The course was designed to meet the national core injury competencies adopted by the Safe States Alliance (formerly known as the State and Territorial Director's Association or STIPDA) and the Society for the Advancement of Violence and Injury Prevention Research (SAVIR). The curriculum for the class was based on the World Health Organization TEACH-VIP curriculum. The Indiana State Department of Health (ISDH) has been selected by the Safe States Alliance to receive an Injury Prevention State Technical Assessment Team (STAT) visit on June 7-11, 2010. The purpose of the visit is to support the development, implementation, and evaluation of injury prevention efforts at the ISDH by conducting an on-site assessment of the current injury prevention program and provide recommendations for improvement. The ISDH's goal is to understand injury prevention activities occurring throughout the state in order to more clearly define the role of a state Injury Prevention Program at the ISDH.

The Indiana Tobacco Prevention and Cessation Agency and Executive Board (ITPC) was created by through legislation by the Indiana General Assembly in 2000 and is funded through the appropriations from a portion of Indiana's share of the Master Settlement Agreement between 46 state Attorneys General and the tobacco companies. The ITPC Agency and Executive Board are responsible for coordinating the State's comprehensive tobacco control program in order to prevent and reduce the burden that tobacco use places on all of Indiana citizens.

ITPC follows the best practices for tobacco control programs developed by the U.S Centers for Disease Control and Prevention. Over 100 grants in local and minority communities and through statewide organizations are funded through ITPC to carry out specific work plans centered on these best practices. ITPC manages the Indiana Tobacco Quitline, 1-800-QUIT-NOW, and conducts numerous outreach interventions with healthcare providers to integrate state-of-the-art cessation systems into their daily practices. An overview of the 2015 Indiana Tobacco Control Plan can be found at www.itpc.in.gov. Through the efforts of ITPC and its partners in Indiana, youth smoking dropped by 50% between 2000 and 2008, 39 Indiana cities and towns have enacted smoke free air laws, and the adult smoking rate of 23% has declined to an historic low.

Children with Special Healthcare Needs continues to fund and collaborate with About Special Kids (ASK) and its statewide network of family-to-family peer support. ASK provides an on-line directory of services for families around the state and provides continual updates of this information. CSHCS publishes a bi-yearly (Summer and Winter) newsletter that contains informative articles and program updates that may affect participants (i.e. policy changes, new mileage reimbursements, etc.). CSHCS also provides information via an on-line system and CSHCS continues to collaborate with the Sunny Start Initiative to develop the informational fact sheets that are available to families on the Early Childhood Meeting Place website.

B.4.D. Infrastructure-Building Services

Indiana's capacity to assess and promote comprehensive systems of services is increasing. MCH and CSHCS support both through funding and staffing many infrastructure building initiatives for all MCH populations. The following is an assessment of the systems and mechanisms currently in place through the facilitation of or in partnership with ISDH, MCH or CSHCS.

State's Capacity to Promote Comprehensive Systems of Services

Over the last several years, ISDH has begun to take a more systematic approach to public health needs in Indiana. The agency has expressly based its programs on the ten essential functions of public health and assessed its own capacity in those areas. A committee at the state level is developing a State Health Improvement Plan that will include development of public health infrastructure as well a improving health status measures. The ISDH has developed an Office of Quality Improvement that works with all programs including MCH, NBS and CSHCS to improve our systems. In addition that office is responsible for readying ISDH and its staff for public health accreditation and certification.

Several years ago, ISDH divided the state into ten Public Health Preparedness Districts. These districts were based on having at least on large county in each district and surrounding counties that could share resources in case of a disaster. The new state health commissioner is encouraging all ISDH programs to use the same type of districting. In addition, he is working with local health departments to consider the possibility of functional regionalization so resources can be shared at the local level.

How Local Delivery Systems Meet Health Needs

It is evident from the health status measures previously discussed in section B.3, that Indiana's state and local delivery systems are not meeting the population's health needs.
The ISDH has worked with approximately 40 of the states 92 local health departments to assess local public health resources and needs on a broad scale. These counties are engaging in comprehensive intervention projects aimed at their highest needs. The Robert Wood Johnson Foundation's recent report on county health rankings shocked many local groups into increasing efforts to decrease risk factors for health issues such as obesity and poor perinatal outcomes.

To address these factors MCH works in collaboration with local health departments, local minority health coalitions and local health care provider groups to review health status data and develop evidence-based interventions. Most of our work has centered on improving perinatal outcomes. MCH has a state perinatal nurse consultant dedicated to this effort who works with the Indiana Perinatal Network to develop local initiatives in the areas of highest need. As a result of these efforts, MCH has been able to fund prenatal care coordination programs in conjunction with existing provider organizations at local levels.

Existing System and Collaborative Mechanisms

Preventive and primary care services for pregnant women, mothers and infants -- The MCH Perinatal Health Program (the functional definition of perinatal has grown to include the

preconception period to age one, with the recognition that health status prior to pregnancy also influences maternal and newborn outcomes) has the primary responsibility to improve infrastructure and perinatal systems of care. In collaboration with the Indiana Perinatal Network (IPN) local health departments, hospitals, private providers, professional organizations and community groups the program works to assure adequate, equal, and accessible services for all pregnant women and their infants. Recent emphasis has been and will continue to be on policy development and provision of technical assistance, consultation, and support on a statewide basis to professionals, paraprofessionals, and other local program staff to ensure quality and availability of services.

Current initiatives in the perinatal area include collaborative efforts to decrease smoking among women of child-bearing age and pregnant women, increase early entry into prenatal care, reduce prematurity (particularly late preterm births), increase breastfeeding and define appropriate obstetric and neonatal levels of care for all hospitals in Indiana. Advisory groups working on these initiatives represent all constituencies concerned with perinatal issues including ACOG, AAP, nurse midwives, consumers and payers and from all geographic regions of the state.

The MCH Perinatal Consultant facilitates the IPN's Infant Health and Survival Program and works with ISDH's Vital Statistics Services to improve the completion of the birth and death certificate data. This should improve the accuracy of the birth and death certificate data for better planning. Efforts are also being made to train some of the larger urban health departments to do the Perinatal Periods of Risk (PPOR) process.

Preventive and primary care services for children: Several infrastructure building grants have been received at ISDH and MCH that focus on children since the last needs assessment. The following information reflect this growing capacity.

Levels of Care Initiative – Although Indiana does not officially have designated primary, secondary, and tertiary level hospitals for perinatal and neonatal services, hospitals complete a survey and self-designate their level base on ACOG-provided definitions. Indiana Perinatal Network updated the self-reported levels of hospital prenatal care in a 2008 survey. (See Table 3 in previous section.) Level I hospitals can be found in 28 counties, most of which are rural. The majority of hospitals listed themselves as providing Level II services for obstetrics and nursery/NICU services. Level II hospitals are found in 39 counties in both metropolitan and rural areas of the sate. There has been an increase in the number of hospitals listing themselves as having Level III NICUs. Ten hospitals list themselves as having Level II obstetrics services but having Level III newborn services. On the other hand, three hospitals list themselves as having Level III obstetrics services but Level II newborn services. Twelve hospitals list themselves as having both Level III obstetrics and newborn services. There are two Level IIIC NICUs in the state and both are in Marion County (Indianapolis). Transport services, both helicopter and special ambulance, are provided by both hospitals.

Some neonatologists have approached ISDH with concerns about the true level of care at some hospitals ISDH has formed a collaborative partnership with the large hospital systems, neonatologists, ISDH Acute Care Division, Office of Medicaid Planning & Policy, and the ISDH Office of Legal Affairs to perform a more thorough assessment. This Levels of Care Initiative

will include evaluation of the quality and capacity of hospital care as well as the quality and capacity of the state's medical transport system for both obstetrics and newborn clients. This initiative will also include investigation of best practices, especially in neighboring states; development of policy and standards of care; and training guidelines for hospitals at all levels.

The Early Childhood Comprehensive Systems (ECCS) Grant Program also known as The Sunny Start: Healthy Bodies, Healthy Minds initiative is funded by the Maternal and Child Health Bureau. The Sunny Start Core Partners and subcommittees continue to meet regularly. With their help, in the past three years the initiative increased opportunities for family leadership, maintained and expanded the Early Childhood Meeting Place website, developed an initial 15 Financial Fact Sheets about available resources for children and families, began the development of a "State of the Hoosier Child" report, implemented a medical home learning collaborative and further integrated activities related to parent education and medical home into the Early Care and Education efforts. With coordination by and the support of the Riley Child Development Center, a subcommittee of the Family Advisory Committee has been meeting to support the development of the Family Leadership Initiative. During the last several years, the Indiana Association for Infant and Toddler Mental Health (IAITMH) has been an active member of our Sunny Start Core Partners. The Sunny Start Social Emotional Training Committee is coordinating activities that will result in an expansion of the early childhood mental health workforce.

Although Indiana no longer has a Coordinated School Health Programs (CSHP) supported by the CDC, the ISDH Division of Nutrition and Physical Activity and MCH Adolescent program are partnering with the Indiana Department of Education (IDOE) and Covering Kids and Families (CKF) to continue efforts to develop the CSHP model The key focus areas continue to be healthy weight, nutrition, physical activity, chronic disease prevention, and decreasing the use of alcohol, tobacco, and other drugs.

IDOE receives CDC funding for the biannual Youth Risk Behavior Survey, which is conducted by ISDH staff. This survey collects data from students in grades 9-12 on the topic of risk behaviors associated with unintentional and intentional injuries, tobacco use, alcohol and other drug use, behaviors that measure the effectiveness of the sexual abstinence and HIV education efforts, unhealthy dietary behaviors, and physical inactivity. For the fall 2009 survey, ISDH was able to obtain the appropriate sample number so CDC could weight the data and include Indiana in the national analysis. The data is used by DNPA, the Adolescent Health Coordinator, the ICIAH and many other partners to plan interventions in areas of health behavior need. Fact sheets on Indiana data were also posted on the ISDH web site (http://www.in.gov/isdh/20627.htm).

The Indiana Coalition to Improve Adolescent Health (ICIAH) was formed in October 2006. The mission of the ICIAH is to promote optimal health and well-being for all Hoosier adolescents (ages 10-24) with an emphasis on prevention and access to quality, comprehensive health care. In late 2006 and 2007 the interdisciplinary group began analyzing data on adolescent health in Indiana and deciding on priority issues for a state adolescent health plan. In April 2008, the coalition partnered with the Indiana University School of Medicine, Section of Adolescent Medicine to conduct focus groups of adolescents throughout the state to gather their thoughts and opinions on various health issues. In May 2009, the coalition published the state's first

adolescent health plan, *Picturing a Healthier Future: A State Strategic Plan for Indiana's Adolescents.* This plan highlights ten health priority issues facing Hoosier adolescents. A copy of the plan can be obtained at the ICIAH website, https://sharepoint.agriculture.purdue.edu/ces/INadolescenthealth/default.aspx Members of the ICIAH are meeting quarterly and searching for resources to implement the plan.

The Injury Prevention Program in Indiana began in 2002 with a CDC grant for violence surveillance integration. An Indiana Injury Prevention Advisory Council was established and meets 3-4 times per year. An epidemiologist was hired to investigate and assess the status of E code use on hospital discharge data which is not required in Indiana. The analysis of the availability of other recommended data sets has also been accomplished. Unfortunately ISDH did not receive implementation funding for an Injury Prevention Program. Efforts were continued by the Indiana Prevention Advisory Council and the part-time epidemiologist. The ISDH requested and has been selected by the Safe States Alliance to receive a State Technical Assessment Team (STAT) visit on June 7-11, 2010. The purpose of the visit is to support the development, implementation, and evaluation of injury prevention efforts at the ISDH by conducting an on-site assessment of the current injury prevention program and provide recommendations for improvement. The ISDH's goal is to understand injury prevention activities occurring throughout the state in order to more clearly define the role of a state Injury Prevention Program at the ISDH. MCH staff leaders are participating in the site visit and are recommending development of a comprehensive ISDH Injury Prevention Program.

In 2008, the CDC awarded Indiana and 22 other state health departments a five year grant to address the growing problem of obesity. Through this grant, the ISDH Division of Nutrition and Physical Activity (DNPA) developed the Indiana Healthy Weight Initiative. The purpose of the Indiana Healthy Weight Initiative is to improve healthy eating and physical activity to prevent and control overweight and obesity and other chronic diseases among Indiana residents. The Initiative's activities include plan, implement and evaluate a state plan for encouraging healthy weight, organize and maintain a task force of statewide partners, and build and sustain statewide capacity for addressing overweight and obesity. MCH staff is participating in this initiative as members of working groups focused on early childhood/childcare, schools, and breastfeeding.

Preventive and primary care services for children with special healthcare needs -- Another example of an existing system is the network if of partnerships established by CSHCS. CSHCS works to coordinate health components of community based systems and coordination of health services with other services at the community level through the Indiana Community Integrated Systems of Services (IN CISS) project supported by HRSA funds. The project partners with governmental and state agencies, community level providers, children and youth with special healthcare needs and their families working together to improve access to quality, comprehensive, coordinated community-based systems of services for Children and Youth with Special Healthcare Needs (CYSHCN) and their families that are family-centered, community – based and culturally competent. The project supports Medical Home Learning Collaborative practices throughout the state to assist in the practices quality improvement efforts around the above 6 core components for successful systems of care for CYSHCN and their families.

State's planning evaluation, research and workforce development efforts

ISDH as a whole, and MCH and CSHCS in particular, are putting more effort into strategic planning based on data, using evidence-based interventions and evaluating results. ISDH has few resources for actual public health research, but collaborates with academic centers when possible to sponsor and perform research projects. Workforce development efforts take place through in house and collaborative efforts.

MCH and CSHCS programs that have developed comprehensive state plans over the past several years include Genomics, Early Hearing Detection and Intervention, Early Childhood Comprehensive Systems, Adolescent Health and the Indiana CISS project. As described earlier in the Needs Assessment, these programs have involved large collaborative advisory groups that reviewed data, solicited input from experts, the scientific literature and other states, decided on priorities, researched evidence-based interventions and then developed goals and specific, measurable, achievable, realistic and time-limited (SMART) objectives. The Oral Health Program is now engaged in such a process to develop a statewide comprehensive oral health plan in collaboration with its partners.

The Prenatal Substance Use Prevention Program has since its inception worked with Indiana University School of Public and Environmental Administration epidemiologist to evaluate the program and use the results to make program improvements. The Indiana RESPECT program partnered with an Adolescent Health Specialist from the Indiana University School of Medicine to evaluate the community and school-based education programs it funded. As a result of the evaluation, the next request for proposals included much stricter requirements for evidence-based curriculums and individual project evaluation.

The new Oral Health Director is planning to implement a basic survey to evaluate the percentage of third graders with sealants in Indiana. This survey will be based on a model recommended by the Association of State and Territorial Dental Directors and used in other states. This process will give Indiana more comprehensive up to date data on the oral health status of children.

The State of Indiana is now in the process of developing two schools of Public Health in order to increase the public health workforce. One will be at the Indiana University Purdue University campus in Indianapolis and the other will be on the campus of Indiana University in Bloomington. This will increase the amount of collaborative work and evaluation MCH and CSHCS can do with faculty and students. Projects have already included evaluations of MCH projects by faculty and student internships with MCH staff. The MCH/CSHCS Medical Director also coordinates a one month elective for fourth year medical students in Public Health/Preventive Medicine. MCH has been working with the Health Care Technical Assistance Program at Purdue University as part of the Midwest Public Health Learning Collaborative. Projects include improving the accuracy of the birth certificate data and working with high risk communities on infant mortality. Staff from Purdue's program is also working with the ISDH Department of Quality Improvement and a large coalition of health professionals, public health experts, community members, health related and health professional organizations and ISDH staff to develop an Indiana State Health Improvement Plan by October 2009. The plan will include public health infrastructure building initiatives as well as interventions to improve

priority health status indicators such as obesity, tobacco use and perinatal outcomes. The MCH/CSHS Medical Director is working on this project.

Coordination Efforts

MCH has worked very strategically over the past few years to coordinate its efforts with other governmental, public and private programs. This direction to coordinate and cooperate with other entities that provide direct services remains one of MCH's main goals for the upcoming five years. This approach is consistent with MCH's efforts to work towards more infrastructure building while focusing on all evidence-based determinants that impact the health and well being of mothers, children, and women of childbearing age. Specific coordination efforts are highlighted in the following.

Medicaid – Medicaid is housed within Indiana's Department of Family and Social Services Administration (FSSA). MCH works closely with a number of FSSA's divisions. With the Office of Medicaid Planning and Policy (OMPP), MCH and CSHCS collaborate together on over 10 initiatives. Highlights of these initiatives include collaboration on new rule and common contract language for local care coordinators; PNCC and FCC education for Medicaid Managed Care Organizations; the Early Childhood Comprehensive Systems Initiative; and Quality Improvement initiatives for neonatal outcomes. Two most recent collaborative projects between MCH and OMPP include smoking prevention/cessation in pregnant women on Medicaid and increasing the number of women entering prenatal care in the first trimester. (See previous discussion in "Enabling Services".)

Supplemental Security Income (SSI) - Supplemental Security Income Program is a "by application" only program in Indiana. CSHCS discusses/refers children to the SSI application process as a part of the transition to adult care.

Ryan White and Title IV AIDS Programs –The Division of HIV/STD is the recipient of federal Ryan White Program funding to address the HIV epidemic in Indiana. The Division, which is a part of Public Health and Preparedness Commission at ISDH, collaborates with MCH and its Perinatal Consultant in a number of key areas. These include patient education regarding the risks for contracting HIV and the benefits of testing, complementary services for expectant mothers, and physician education regarding the legal requirements for testing pregnant women. The Division provides MCH with relevant STD prevalence data for adolescent populations and, through the Indiana State Hemophilia Insurance Program, coordinates insurance payments for CSHCS-eligible children living with hemophilia. MCH and HIV/STD are collaborating on the One Test/Two Lives campaign to increase HIV testing among pregnant women.

Social Service Programs - MCH and CSHCS partner with the Indiana Family & Social Services Administration to provide social services. Programs range from health insurance (Medicaid/Indiana CHIP) to enrollment in programs for children with special needs (First Steps).

Special Ed Programs - Special education programs are the realm of the Indiana Department of Education (DOE). CSHCS partners with DOE on the early and late transition advisory committees, providing input as the healthcare representative.

Early Intervention Including Part C of Individuals with Disabilities Act (IDEA) - MCH has coordinated with First Steps (Indiana's Early Intervention Program) for many years. The CSHCS Director serves on the First Steps Interagency Coordinating Council. There is also close coordination in the NBS EHDI Program because all babies who do not pass the hearing screening are referred by the hospitals to the First Steps Systems Point of Entry (SPOE). The EDHI regional audiologists work with First Steps SPOEs to obtain diagnoses for the babies who have not passed their newborn hearing screens. In addition, through the UNHS/EHDI Program, service coordination providers that will become First Steps providers are trained to work with families with infants newly diagnosed with hearing loss. The First Steps Director participates in the Indiana Genetics Advisory Committee and both of the NBS Advisory Committees. First Steps also shares data with CSHCS and UNHS/EHDI. Healthy Families Indiana is another early intervention home visiting program that identifies, at the time of birth of a baby, those families that are at risk of child abuse. MCH has provided financial support for the training efforts involved in this state wide program.

Vocational Rehabilitation - MCH coordinates with vocational rehabilitation programs through their inclusion in the database of providers in the Indiana Family Helpline. Calls from citizens or professionals can obtain appropriate referral contacts to statewide vocational rehabilitation offices and agencies. CSHCS also coordinates with these offices and agencies during transition planning for youth.

Mental Health Including Child and Adolescent Services - There are several coordination efforts that MCH has with the Family and Social Services' Division of Mental Health and Addiction. The PSUPP program is funded in part by the Division of Mental Health and Addiction which supports sixteen projects in twenty six counties throughout the state. PSUPP is the only program that collects data on prenatal substance use in Indiana. Quarterly and annual reporting is provided to DMHA on the progress of the projects. Also, the MCH PSUPP site directors collaborate with the DMHA Access to Recovery (ATR) Program. ATR provides payment for recovery and support services.

MCH participated with DMHA collaboratively on the Strategic Prevention Framework State Incentive Grant (SPF SIG). The purpose of the five year grant from the Substance Abuse & Mental Health Services Administration/Center for Substance Abuse Prevention (SAMHSA/CSAP) was to reduce substance use and abuse across the lifespan of Indiana citizens. The program concluded in May 2010.

Additionally, MCH staff convened the Prenatal Substance Abuse Commission (PSAC), which included DMHA staff. Prior to "sundowning" in December 2009, the PSAC recommended the creation of an ongoing cross agency committee to be convened in August 2010, with MCH acting as lead staff.

The Chief of Child and Adolescent Services in the Division of Mental Health and Addiction is a member of the Early Childhood Comprehensive Systems (ECCS) steering committee. As evidence of the coordination efforts of the two agencies, the DMHA recently granted $50,000 to support a certification program to train mental health providers in infant and toddler mental

health which will increase capacity in Indiana for families to access qualified mental healthcare for their children.

Additionally, the DMHA Chief of Child and Adolescent Services is a member of the Indiana Coalition to Improve Adolescent Health which meets regularly to promote optimal health and well-being for all Hoosier adolescents (ages 10-24) with an emphasis on prevention and access to quality, comprehensive healthcare.

State Interagency Transition Programs – Title V funds many grant projects throughout the state to support CYSHCN and their families. These projects provide medical, care coordination and support/advocacy services to CYSHCN and their families through Newborn Follow-Up for children with or at risk of developmental disabilities, care coordination for CYSHCN with Spina Bifida, transition services for YSHCN to assist in transferring to adult healthcare, work and independence, outreach to the Amish population for hemophilia support, family support through funding to About Special Kids (ASK) a family-to-family support organization and support of a satellite CSHCS program office at the states largest children's hospital to assist families with public health insurance enrollment to pay for needed services.

Developmental Disabilities Programs - MCH coordinates with developmental disabilities programs primarily through interactions with the First Steps Program and with the UNHS/EHDI follow-up efforts. The Indiana Family Help Line also includes these programs in the database and can provide callers with these referrals. Some of these agencies may be providers in the CSHCS program.

SSDI - In grant year 2010-2011 MCH continued refocusing its data integration projects by incorporating web-compatible and web-based coding into MCH applications and data modules. This means that MCH will benefit from open platform coding, lower costs, and software development procedures that have been tested and peer reviewed. In the current efforts to maximize usage of web compatible technologies, MCH is looking at best practices across various states.

School Health Programs - Please refer to the previous section regarding the School Health Programs. The Genomics Program, through the Fetal Alcohol Spectrum Disorder (FASD) task force, has developed and marketed curricula on FASD. These curricula targets high school and middle school students and can be used in a variety of courses ranging from biology and social sciences to health classes. This curriculum can be found at the MCH website: http://www.in.gov/isdh/23935.htm

Women, Infants, and Children's (WIC) - MCH works closely with WIC both at the state level and the local level. At the local level, if WIC/MCH projects are not co-located, MCH to WIC referrals are made regularly as needed and vice versa. At the state level, WIC's Breastfeeding Coordinator participates on the Indiana Breastfeeding Alliance, a sub-committee of Indiana Perinatal Network, along with the State Breastfeeding Coordinator, funded by MCH, and an MCH Nurse Consultant who acts as the breastfeeding liaison for MCH. With the ISDH emphasis on reducing obesity, especially among children, MCH, WIC and the Division of

Nutrition and Physical Activity participate collaboratively in planning strategies to benefit their mutual goals addressing breastfeeding.

The Indiana Chapter of the American Academy of Pediatrics (InAAP) - Works closely with both MCH and CSHCS. The InAAP has been a core partner of the Indiana Early Childhood Comprehensive Systems project (Sunny Start) since its inception. Sunny Start and the InAAP collaborated to assist a group of Pediatric practices with improving developmental screening of young children in their practices. An InAAP member attends Sunny Start Core Partner meetings quarterly. For the last two years, the InAAP has played a pivotal role in the development of the Community Integrated Systems of Service for Children and Youth with Special Healthcare Needs (Indiana CISS) project. Members of the InAAP assisted CSHCS staff in coordinating a Medical Home Summit in April 2008 with physicians, Medicaid, Managed Care Organizations, other state agencies and interested parties. Staff from the National AAP Medical Home office and two pediatricians from other states oriented all present to the concept of Medical Home. Then the group discussed how the concept could be further encouraged in Indiana. This meeting was important in bringing together members of the Medical Home committees of Sunny Start and CSHCS's Integrated Community Services Advisory Committee. The decision was made to meld the committees and this group was instrumental in developing the grant application for the IN CISS project funding which CSHCS received in June 2009. One member of the InAAP has been working as a consultant with the IN CISS program Medical Home Learning Collaborative which includes 5 pediatric practices and 4 family practice offices. In addition InAAP members assist ISDH with Injury Prevention program development efforts. InAAP members are also active on the Steering Committee of the Indiana Coalition to Improve Adolescent Health, the Indiana Joint Asthma Coalition, the Indiana Immunization Coalition, the Indiana Healthy Weight Initiative and the Lead and Healthy Homes Coalition.

American Academy of Family Practice (AAFP) - Through the IN CISS project, the Indiana Chapter of the American Academy of Family Practice has become very involved in the Medical Home Learning Collaborative. Their Director of Legislative and Regional Affairs has been an active member of the MHLC steering committee. She has contributed the Family Practice perspective on medical home and encouraged Family Practice offices to join the collaborative. It has been helpful to have both pediatricians and Family Practice physicians participate in this project.

American College of College of Obstetricians and Gynecologists, Indiana Chapter (ACOG) – MCH, IPN, and the Indiana Chapter of ACOG work closely to develop standards of prenatal care. These are published every three years on the IPN website. ACOG is partnering with MCH on several perinatal initiatives including the reduction of premature births and appropriate obstetrics services by hospital level. Current initiatives include assessment and restructuring of maternal transport to assure all counties are covered, review of policies concerning transport/referral, and creation of a standard memorandum of understanding (MOU)- between hospitals. Large Level III hospitals are encouraged to mentor smaller Level I, II and III facilities. Obstetricians, as well as pediatricians and neonatologists, also participate in the Indiana Coalition to Prevent Prenatal Smoking and in Maternal Mortality review panels. In addition, maternal-fetal medicine specialists are working with MCH to help define more accurately levels of prenatal care facilities in Indiana hospitals.

Emergency/Preparedness Systems - ISDH in conjunction with the State Emergency Management Agency has created ten Public Health Preparedness Districts. The geographic boundaries of those districts were based on the population, healthcare user patterns (i.e. hospital service areas) availability of emergency response resources, and economic and cultural ties. MCH has encouraged its funded projects to work closely with their local disaster preparedness organizers which are usually the local health department and county emergency management agencies. The MCH/CSHCS Medical Director has worked with the ISDH Preparedness Division to emphasize the needs of pregnant women and CSHCN during disasters. Information regarding needs of these special populations (including the deaf and hard of hearing) are currently being collected for planning with local health departments. During the recent H1N1 flu epidemic, CSHCS and MCH developed special information sheets for these especially vulnerable populations.

Family and Parent Advocacy Organizations – The goal of Indiana's CSHCS is to provide and promote family-centered care and to offer community-based coordinated care for children with special healthcare needs to facilitate the development of community-based systems of services for those children. In fulfilling this mission, CSHCS ensures that all families of children with special healthcare needs partner in decision-making at all levels. Specifically, CSHCS partners with many Family and Parent Advocacy Organizations, About Special Kids (ASK), IN Family Voices, IN F2FHIC, and many condition specific advocacy groups, in efforts to standardize care, monitor effectiveness and evaluate program approaches, and develop community-based service systems. At the systems level, families are an integral part in the design and ongoing system implementation. At the individual level, families are acknowledged as the constant in their children's lives and recognized for their expertise related to their child's strengths and needs. During the past five years, CSHCS has added parents of children with special healthcare needs as staff in many of the agencies that support children and youth with special needs. Two parents of CSHCN are staffing the Indiana CISS project. Additionally, CSHCS and other agencies encourage parent and family participation on advisory groups and initiatives.

Indiana Coalition to Improve Adolescent Health (ICIAH) - Comprised of individuals and representatives from agencies and organizations serving youth in a variety of capacities who share the common goal of improving the health of adolescents and emerging adults. The mission of ICIAH is to empower adolescents and emerging adults (ages 10-24) to choose lifestyle behaviors that will improve their quality of life and address their unique health needs. www.INadolescenthealth.org In 2009, ICIAH distributed 500 copies of the state adolescent health plan. Also, over 50 new adolescent health-related resources were added to the Coalition's Web site for access by parents, adolescents and professionals

Indiana's MCHB Early Childhood Comprehensive Systems - Grant funds the Sunny Start: Healthy Bodies, Healthy Minds initiative. The initiative's purpose is to engage state agencies, community partners and families of young children in a collaborative process that will lead to a coordinated, comprehensive, community-based system of services for young children and their families. The goal of the initiative is to ensure that young children arrive at school healthy and ready to learn.

The initiative addresses the needs of all young children from birth to age five and their families throughout Indiana. During the current grant cycle, the initiative is developing opportunities for Family Leadership, supporting the development of a highly qualified early childhood mental health workforce, maintaining and expanding the Early Childhood Meeting Place website, developing a "State of the Hoosier Child" report and financial scan, implementing a Medical Home learning collaborative, and integrating activities related to parent education and medical home into the Early Care and Education efforts.

CSHCN-Constructs of Service System-Children's Special Healthcare Services collaborates with numerous organizations around the state in order to provide for children requiring special services. These organizations range from First Steps, which collaborates with MCH and CSHCS on enrollment of children to the Department of Education, which partners with MCH and CSHCS on early and late transition committees for children. In addition, CSHCS works with the Indiana Academy of Pediatrics on the Indiana CISS-Medical Home (MH) learning collaborative project to establish medical homes for children requiring coordination for multiple needs. The parent organization partnerships, such as About Special Kids (ASK), provide an additional avenue for the exchange of information between parents, communities and MCH.

The CSHCS program supports communities by providing technical assistance, consultation, education and training on a variety of topics such as CSHCS program eligibility, transition to adult healthcare, work and independence, resources and Medical Home initiatives. The program provides financial resources for care coordination staff working in specialty clinics serving CYSHCN and their families. The CSHCS Integrated Community Services Program provides TA to pediatric and family practices throughout the state by recruiting and supporting practices' medical home implementation through QI initiatives identified by the individual practices. Financial resources are provided to reimburse parent/family input to the practice teams enhancing the Family /Professional partnership building.

CSHCS assists in the coordination of community-based systems via funding efforts. The CSHCS program provides financial resources for a satellite CSHCS office in one of the states largest Children's Hospitals and financially supports care coordination staff working in specialty clinics serving CYSHCN and their families. CYACC's work on the EOVs (Educational Office Visits) promoting interaction between Medical Home and CAYACC will be a model for interaction between the Medical Home and other specialty providers.

At the community level, the CSHCS program collaborates with Indiana's early intervention system, First Steps, for Child Find efforts, care coordination and training for staff and families of children with special healthcare needs. Additionally the CSHCS program partners with DOE on early and late transition efforts throughout the state. CSHCS funds ASK to provide some of this coordination.

B.5. Selection of State Priority Needs

The selection of state priority needs for the next 5 years was a multi-step process that involved staff, health professionals, parents, and community partners. The process is described in this section and results.

List of Potential Priorities

To begin the process of selecting priorities for the needs assessment, program staff and directors from MCH, Oral Health and CSHCN created a list of potential priority health topics. With assistance from the MCH epidemiologist, these topics were further explored using the Matrix exercise. The final topics selected were put into a Q-Sort for input and comment from collaborators, partners, and the public. (Please refer to Section B.1 of this five year needs assessment for more detail on our methodology.)

The initial list of priority health topics included Infant mortality, black infant mortality, over 80% Kotelchuck Index, start prenatal care in first trimester, prematurity, unintentional injury, SIDS,SUIDS, homicide, suicide, domestic abuse, sexual abuse, asthma in children, obesity, overweight, lead poisoning, not immunized, tooth decay, percent without protective dental sealants, percent on Medicaid, sexual activity, HIV/AIDS, unintentional pregnancy, STD, pregnancy interval, teen pregnancy, terminated pregnancy, alcohol abuse, drug abuse, children smoking, smoking while pregnant, smoking during reproductive years, alcohol while pregnant, drugs while pregnant, low birth weight, very low birth weight, congenital anomalies, hearing loss, iron deficiency, breastfeeding, unemployment, food stamps, women with diabetes, women with cardiovascular disease, cancer in women, asthma in women, obesity in women, overweight in women and the 10 most prevalent conditions in the Indiana Birth Defects and Problems Registry. The six core measures of Children with Special Healthcare Needs were also included. The reasons why the above topics were considered and were or were not included are explained in Table 1.

As a result of the Matrix exercise, thirty-six topics were chosen for the next phase of the process which included gathering collaborator, partner, and public input from the Q-Sort. (The Q-Sort exercise is also described in section B-1.)

Methodologies for Ranking/Selecting Priorities

The 36 health topics were graded by the public using the Q-Sort method described in section B-1. Title V program directors and staff selected the final list of priorities. Specifically, the MCH Director, Oral Health Director, CSHCN Director, Medical Director and key program directors used public input, program input, past performance measures and program expertise to determine the top 7-10 priority measures for Indiana. The group met in a series of meetings to discuss each potential priority. Each potential priority was reviewed by (1) its Matrix score awarded by program staff and the Q-Sort score awarded by the public, (2) whether it was an existing state performance measure or a national performance measure, and (3) if the goals and objectives

were attainable in the next 5 years. The outcome resulted in the selection of 10 state priorities, three from the previous needs assessment and seven new ones.

The following table (Table 1) includes the thirty-six topics that were included in the Q-Sort. The table identifies why each topic is important, why it was considered as a priority and why or why not it was included in the final selection of the 10 priority health concerns.

The following table includes the topic, a discussion on the topic, why it was considered as a priority and why or why not it was included. State Performance Measure numbers refer to new State Performance Measures listed in State Performance Measure appendix 3.

Table 1
Topics Included in Q-Sort

Topic	Discussion	Why Considered	Why /Why Not Included
1. Children and adolescents who are obese or at risk of becoming obese	High BP, type2 diabetes, high cholesterol, heart disease	Almost 16% of 9-12th graders overweight (YRBS)	Included. Indiana rate increasing since 2002. (State PM8)
2. Children at risk of exposure to lead (example: paint in old houses)	Permanent and irreversible damage to brain and organs	Indiana percentage of 0-7 year-olds decreasing since 2000	Included. More children 0-7 being tested. (State PM5)
3. Infants who are born prematurely	Leading cause of death to newborns	1 out of 8 children born prematurely	Included. Indiana rate has been increasing. (State PM7)
4. Very short time between pregnancies	Increases the risk of negative birth outcomes	Indiana rate of 18 months or less between pregnancies higher than US rate from 04-06	Included. Seeing increase in rate of short-term interval pregnancy. (State PM6)
5. Women who do not receive adequate prenatal care	Increases risk of low birth weight and prematurity	Indiana at 77.6% below 90% goal of adequate or adequate plus prenatal care	Included. Concentrating on black population. (State PM4)
6. Women who smoke between the ages of 14 and 44 years old	Causes low birth weight, cancer and other serious conditions	Indiana consistently much higher than nation. In Indiana 1 out of 4 smoke during child-bearing age.	Included. Concentrating on pregnant Medicaid population. (State PM3)
7. Women who smoke during pregnancy	Increases the risk of low birth weight	Over 17% of pregnant women smoke in Indiana	Included. Concentrating on Medicaid population. (State PM3)

8. Abuse in the maternal and children's health populations	Causes severe physical, mental and emotional damage	Indiana lower in child abuse and neglect than US in 2007 (Indiana Youth Institute)	Not Included. Not scored in top 10 priorities. DCS has main responsibility.
9. Babies who weigh lower than recommended at birth (less than 5 pounds/2500 grams)	Low birth weight causes increased risk of infant mortality and morbidity	Over 8% of births are LBW in Indiana	Not included. Health Status Indicator 1A. Also included in premature birth priority
10. Black infants who die in the first year of life	Black IMR 2-3 times higher than overall IMR	Almost 16 per 1,000 in Indiana	Not included. National Outcome Measure 2
11. Children and adolescents who drink	Increases homicide, suicide, motor vehicle death, injuries	3 out of 4 9-12th graders have consumed alcohol (YRBS)	Not Included. Issue too broadly focused, covered by another state agency.
12. Children and adolescents who smoke	Causes 33% of cancer and 20% heart disease deaths	Over half 9-12th graders have smoked (YRBS)	Not Included. Concentrating pregnant Medicaid population. (State PM3) Have state tobacco prevention cessation agency.
13. Children w/Special Healthcare Needs not tested for health problems early and/or continuously	Early detection allows for intervention and treatment	63% of families believe screens early/continuous (NSCSHCN)	Not included. National PM 1 and National PM3
14. Children w/Special Healthcare Needs who don't have a primary physician overseeing healthcare	Indiana's Medicaid program ensures primary physician	About 6% do not have primary physician (NSCSHCN)	Not included. National PM3. InCISS goal to increase Medical Homes for CSHCN.
15. Children w/Special Healthcare Needs without adequate insurance	Indiana's Medicaid should meet adequate coverage for children with special healthcare needs as covered in the NSCSHCN	32% families believe not adequate coverage (NSCSHCN)	Not included. National PM4. Sunny Start (ECCS) and IN CISS emphasize access to financial aid.

16. Children who are hospitalized as a result of unintentional injuries	Leading cause of death for children and young adults	Leading cause of death, <1(Suffocation) 1-24 (Motor Vehicle)	Not included. Partially covered by NPM10 and NPM16. ISDH developing Injury Prevention Program.
17. Children who have asthma	Not preventable, causes lifetime of illness	Indiana rate for <18 higher than US 2009 (BRFSS)	Not included. Asthma program already in place in ISDH Chronic Disease Division.
18. Congenital abnormalities and birth defects most commonly reported	Cause serious conditions throughout life of child	High cost of caring for children who are not identified shortly after birth	Not included. NBS has birth problems registry.
19. Children w/Special Healthcare Needs services not being easy for families to use	Positive results until families learn of new services unused	Almost 95% agree services are organized (NSCSHCN)	Not included. National PM5. Part of IN CISS project.
20. Diabetes in the maternal and children's health populations	#1 cause of blindness, kidney disease lower amputations	Diabetes in children and women has increased since 2004	Not included. Impacted by SPM8.
21. Infant mortality overall (including Sudden Infant Deaths and Sudden Unexplained Infant Deaths)	Indiana Infant mortality higher than goal of 4.5 per 1000	Indiana IMR is 7.7 per 1000 in 2007 (Pediatric Nutrition Surveillance)	Not included. National Outcome Measure 1. Impacted by SPM1
22. Infants and children who are deaf or hard of hearing	Most common condition identified at or shortly after birth	In 2007, 98.1% infants screened. In 2008, 97.2% infants screened.	Not included. National PM12
23. Iron deficiency (low blood iron levels, anemia) in children	Delays growth and development of child, damages organs	Indiana rate higher than US consistently	Not included. Process already in place for WIC.
24. Sexual activity in adolescents	Higher risk of pregnancy and STD's	Almost half 9-12 graders had sexual intercourse (YRBS)	Not included. Partially covered in State PM9

25. Teen homicide	13th leading cause of death for males, 20th for females (all ages)	Black males 14 times more likely than white	Not included. Issue too broadly focused.
26. Teen pregnancies	One out of 10 children born to 19 and under. In 2007, 15-19 teen pregnancy rate was 53.1 per 1,000	Decreasing since 1996	Not included. National PM8.
27. Teen suicide	Decreasing in Indiana since 2005, until 2009	9.3% reported attempted suicide (YRBS in 2009)	Not included. National PM16.
28. The percent of children who do not receive complete immunizations for their age	Important for healthy growth and development	96% of schools met state requirement 2007 for children receiving complete immunizations for their age	Not included. National PM7.
29. The percent of children who have dental problems due to tooth decay/lack of sealants	Needless pain, suffering, school absenteeism, even death	Overall condition of teeth for 0-17 years old decreasing (NSCH)	Not included. National PM9.
30. The percent of mothers who breastfeed their babies	Best nutritional source for infants, lowers risk of illness	Indiana lower than US in % of breastfeeding	Not included. State PM2.
31. Unintended pregnancies	Causes hardships for parent and child	Causes terminations and poverty to increase	Not included. Issue too broadly focused, no good way to measure.
32. Women between the ages of 14 and 44 who have Sexually Transmitted Diseases	Severe illness and even death. Affects childbirth	Risk to both mother and child	Not included. Concentrating on teenage STD infections. SPM9.
33. Women who do not enter prenatal care in the first three months of pregnancy	No 1st Trimester PNC increases negative birth outcome	Indiana early PNC % decreasing since 2002	Not included. National PM18.
34. Women who drink alcohol during pregnancy	No amount of alcohol is safe for fetus	Self-reported, so much higher than % shows	Not included. Poor data.

35. Women who have HIV or AIDS	Causes serious illness and/or death to mother or child	Decreased between 2006 and 2008	Not included. Concentrating on teenage STD infections. HIV program concentration.
36. Youth w/Special Healthcare Needs not receiving appropriate services as they transition to adult med care	20% of CYSHCN are ages 12-17, so will soon be transitioning to adult med care	2 out of 5 think necessary care not provided	Not included. Goal of IN CISS. National PM6.

Priorities Compared with Prior Needs Assessment

From the current needs assessment, Title V staff identified new State priorities as well as the need to continue to existing ones. Three priorities were continued from the past needs assessment. The first, "Increase the percent of black women (15-44) with a live birth whose prenatal visits were adequate," was continued because Indiana is well below the national goal of 90%, and the trend is negative. The second priority, "Decrease the percentage of births occurring within 18 months of a previous birth to the same birth mother," was continued because Indiana has remained below the national trend over the past 5 years and program staff wanted to continue the efforts already started. The last priority from the previous needs assessment that is included in this five year needs assessment is "Decrease the percentage of children less than 72 months of age with blood lead levels 10+ Micrograms per deciliter". This priority, although the age has been modified from 0 – 7 years, is being continued because Indiana has been able to test more children for lead poisoning each year. This has resulted in Indiana's receiving more confirmed results which show more accurate lower rates. The momentum and progress will help to decrease the number of children with lead poisoning over the next 5 years.

Seven priorities were added for this needs assessment. "Decrease the prevalence of smoking for pregnant women on Medicaid" was added because the rate of smoking for Indiana's pregnant Medicaid population is much higher than the overall state rate. "Decrease the preterm births with developing a statewide plan" was added because premature birth is the leading cause of newborn death and Indiana's rate has been increasing. "Increase the percentage of women who initiate exclusive breastfeeding" was added since it is the best nutrition for infants and Indiana is well below the national percentage. "Lower the rate of suffocation deaths of infants" was added because Indiana's infant mortality rate is much higher than the Healthy People 2010 Goal and decreasing suffocation deaths is a statewide priority. "Decrease the percentage of high school students who are obese" was added because almost 16% of Indiana high school students are obese and the rate has been increasing since 2002. "Decrease the percentage of high school students who become infected with an STI" was added because the percentage of Indiana high school students having sexual intercourse is increasing, and STI's can cause serious illness and even death. "Build capacity for promoting social-emotional health 0-5" was added because a child's mental and emotional health is just as important as their physical health. Indiana would like to develop more programs to promote social-emotional health in children.

The appendix entitled *New State Performance Measures* provides detailed information on each 2011-2015 state performance measure and also gives an overview of the priority issue.

Priority Needs and Capacity

Making improvements for the FY 2011-1015 State priorities are going to require interventions at all four service levels of the Title V pyramid. The Appendix 3, State Performance Measures 2011 – 2015, contains the SPMs developed for each of the state priorities. Graphs of activities at the four service levels of the pyramid and partners involved for each new state performance measure were also developed and are in the appendix.

During the Needs Assessment process, MCH and CSHCS considered the capacity of their staff and partners as a criterion in deciding on priorities. Included with the explanation about the

levels of the pyramid are some comments about capacity. A brief summary of these capacity considerations and explanations follows.

"Decrease the percentage of smoking for pregnant women on Medicaid" will involve:

1. DHC - Title V funded project staff addressing smoking in women of childbearing age, pregnant women and postpartum women.
2. ES - Providing training and materials to Medicaid prenatal care providers to promote the use of Indiana Tobacco Quitline.
3. PBS - Increase awareness of the significance of smoking during pregnancy among women of childbearing age through media messages.
4. IB - Continue to support the Indiana Coalition to Decrease Smoking among Pregnant women.
5. Capacity – MCH has a full time Perinatal Nurse Consultant and another nurse who works part-time on prenatal substance abuse prevention. Changing this priority relies heavily on partners.

"Increase the percentage of black women with a live birth whose prenatal visits were adequate" will involve:

1. DHC – Using certified nurse midwives Early Start clinics.
2. ES - Increase the number of Free Pregnancy Test sites.
3. PBS – Continue to promote the media campaign "A Healthy Baby Begins with You".
4. IB – Promote "Text for Baby" information service statewide.
5. Capacity – The perinatal nurse consultant will work on this with ISDH Office of Minority Health, Indiana Minority Health Coalition, IPN, local minority health coalitions, local health departments and other local community members.

"Decrease the rate of suffocation deaths of infants" will require:

1. DHC – Counseling by health care providers on proper sleep environment.
2. ES – Develop and implement a best practice safe sleep hospital policy with guidelines for patient education.
3. PBS – Design education programs for the public that are culturally competent.
4. IB – Facilitate statewide death scene investigation training for coroners.
5. Capacity – The part-time SIDS/SUIDS coordinator at IPN will work on this with the committee to decrease SIDS and SUIDS as well as the Perinatal Nurse Consultant.

"Increase the percentage of women who initiate exclusive breastfeeding" will include:

1. DHC – Provide lactation counseling in MCH and WIC clinics.
2. ES – Instruction and assistance for workplace lactation support.
3. PBS – Expand black breastfeeding coalitions.
4. IB – Collaborate on the Indiana Healthy Weight Initiative breastfeeding committee
5. Capacity – An MCH Nurse Consultant works part time on breast feeding along with an MCH funded State Breastfeeding Coordinator at IPN and WIC, the Division of Nutrition and Physical Activity and state and local breastfeeding coalitions.

"Decrease the percentage of preterm births" will focus on:

1. ES – Supporting the Preterm Birth Executive Group to foster collaborative policy, strategies, standard and agreement among all delivering hospitals in Indiana.
2. IB – Improve data collection and analysis to inform program and policy decisions and monitor progress.
3. Capacity – This issue will be coordinated by the Perinatal Nurse Consultant along with IPN and partners on the Preterm Birth Executive Group.

"Decrease the percentage of births occurring within 18 months of a previous birth to the same mother" includes:

1. PBS – Improving the knowledge of men and women of childbearing age related to preconception health through media messages.
2. IB – Develop a state family planning work group with partners to develop statewide preconception and interconception program.
3. Capacity – The Indiana Family Health Council (Title X) will partner with the Perinatal Nurse Consultant to form and coordinate a work group.

"Decrease the percentage of children less than 72 months of age with blood lead levels greater or equal to 10 micrograms per deciliter" will involve:

1. DHC – Primary medical providers obtaining blood lead level tests.
2. ES – Conducting training of Local Health Department personnel on reporting, monitoring and preventive procedures for lead poisoning.
3. PBS – Continue to encourage Medicaid reimbursement for testing, case management and environmental inspections.
4. IB – Improve Lead Program data collection, analysis and comparison of data with other programs such as Medicaid and WIC.
5. Capacity – The Indiana Lead and Healthy Homes program will manage this issue. MCH child health clinics, CHCs, WIC and Local Health Departments are partners.

"Decrease the percentage of high school students who are obese" will require:

1. DHS – Primary medical providers screening adolescents for BMI.
2. ES – Developing provider training on proper BMI screening, nutrition assessment and intervention.
3. PBS – Participate in Indiana Healthy Weight Initiative public information initiatives.
4. Capacity – the State Adolescent Health Coordinator, ICIAH, MCH Nutritionist and staff of Division of Nutrition and Physical Activity will coordinate this priority.

"Decrease the number of high school students who become infected with an STI" involves:

1. DHS – Promote family planning and reproductive health services.
2. ES – Make mini-grants available through the ICIAH.
3. PBS – Use Indiana RESPECT Media Campaign (website) to expand prevention messages statewide.
4. IB – Further publicize and develop the Statewide Adolescent Health Plan.
5. Capacity – The State Adolescent Health Coordinator will work with ICIAH, Indiana RESPECT local grantees and the Indiana Family Health Council to decrease STIs among teens.

MCH Population Groups

The ten Indiana priorities address women, pregnant women, infants, children and adolescents. Although these health priorities do not include one specifically addressing CYSHCN, the CSHCS Division will focus its efforts with families and other partners in two main areas. First, the mission of the Integrated Community Services (ICS) Program within the Children's Special Health Care Services (CSHCS) Division is to improve access to quality, comprehensive, coordinated community-based systems of services for CYSHCN and their families that are family-centered and culturally competent. The Indiana Community Integrated Systems of Services (IN CISS) Project's objective is to develop lasting and sustainable integrated community systems of care for CYSHCN that achieve long-term outcomes of systems development; ensuring all families are able to access health and related services along the continuum of care in a manner that is affordable and meets their needs; appropriate policies and programs are in place to guarantee that children have access to quality health care; providers are adequately trained; financing issues are equitably addressed; and families play a pivotal role in how services are provided to their children.

Indiana was one of six states to be awarded federal funding from HRSA/MCHB to support system improvement for CYSHCN and their families and began working on systems improvement on June 1. 2009. Indiana is using the framework of the "National Agenda for Children with Special Health Care Needs: Achieving and Measuring Success" to address objectives that fill gaps for CYSHCN in Indiana in each of the six core outcomes of successful systems of care while synthesizing the goals into "umbrella" or overarching goals focused on 1)Medical Home Implementation, 2)Transition to Adult Care, and 3)The Indiana Community Integrated Systems of Services (IN CISS) Advisory Committee development in order to sustain the project.

The second area of focus involves Indiana's Children's Special Healthcare Services (CSHCS) program reimbursement of providers for direct service expenses related to the CSHCS participants' medical condition. With the present economic climate the program faces continuing challenges to provide the past level of benefits within the current budget constraints.

Pregnant women, mothers and infants are addressed by the following state priorities:

1. Decrease the percentage of pregnant women on Medicaid who smoke (SPM 3)
2. Increase the percentage of black women (15-44) with a live birth whose prenatal visits were adequate (SPM 4)
3. Increase the percentage of women who initiate exclusive breastfeeding (SPM 2)
4. Decrease the percentage of preterm births (SPM 7)
5. Decrease the percentage of births occurring within 18 months of a previous birth to the same birth mother (SPM 6)

Children are addressed by the following state priorities.

1. Decrease the rate of suffocation deaths of infants (SPM 1)
2. Decrease the percentage of children age 0-72 months with blood levels greater than or equal to 10 micrograms per deciliter (SPM 5)

3. Decrease the percentage of high school students who are obese (SPM 8)
4. Decrease the percentage of high school students who become infected with an STI (SPM 9)
5. Increase capacity for promoting social-emotional health in children 0 to 5 (SPM 10)

Title V staff used a comprehensive approach in evaluating the needs of women, mothers, infants and children for the next five years. The MCH and CSHCS Divisions worked diligently to assess needs, examine capacity and determine healthcare priorities. Prior to determining the healthcare priorities, MCH and CSHCS reviewed health status indicators; reports from existing grantees and program consultants; previous MCH state programs; previous state and national performance measures and initiatives; qualitative data from parents, collaborating partners and the public; quantitative data regarding resource capacity; legislative direction; and budgetary constraints to develop an initial list 50 health issues. Through a series of processes described more fully in the B.1 Methodology Section of this needs assessment, many program experts, epidemiologists, parents, collaborating partners, and the public participated in this process to select the final top ten State healthcare priorities. We will use our resources over the next five years to undertake activities that impact the health and well being of these vulnerable populations.

Priority Needs and State Performance Measures

As described in the B.1 Methodology Section of this needs assessment, the ten SPMs identified for 2011 – 2015 directly correlate to the top ten priority needs. The following chart lists each priority need and the SPM and/or the NPM that supports the need.

Priority Need	SPM	NPM
1. Decrease the rate of suffocation deaths of infants.	SPM 1	
2. Increase the percentage of women who initiate exclusive breastfeeding for three months	SPM 2	NPM 11
3. Decrease the percentage of pregnant women on Medicaid who smoke	SPM 3	NPM 15
4. Increase the percentage of black women (15 through 44) with a live birth whose prenatal visits were adequate	SPM 4	NPM 18
5. Decrease the percentage of children less than 72 months old with blood lead levels greater or equal to 10 micrograms per deciliter.	SPM 5	NPM 1
6. Decrease the percentage of births occurring within 18 months of a previous birth to the same mother	SPM 6	NPM 17

7. Decrease the percentage of preterm births	SPM 7	NPM 17, NPM 18
8. Decrease the percentage of high school students who are obese	SPM 8	NPM 14
9. Decrease the percentage of high school students who become infected with STI	SPM 9	
10. Increase the capacity for promoting social-emotional health in children to age 5	SPM 10	

Indiana will measure the success in meeting these priority health needs in three ways. First, Indiana will monitor the performance measures to determine if the planned interventions and activities have had an impact. Monitoring will include use of vital statistics, BRFSS, YRBS and program outcomes and evaluations. Of note, however, is that current quantitative data is not always available and can lag significantly behind interventions making it difficult to determine what is causing an impact.

Secondly, Indiana will measure success by determining periodically if the current and proposed activities for each measure have been completed. Assuming the current and planned activities will have a positive impact on each priority health need, this measurement is also a good determinate of success.

Thirdly, Indiana will solicit qualitative data from collaborators, partners, and families regarding each health priority. This method of measuring success is timely and will allow for quick changes in activities if positive impacts on priority health needs are not being made.

B.6. Outcome Measures—Federal and State

Indiana Maternal and Child Health (MCH) Division and Children with Special Health Care Services (CSHCS) Division continue to focus on the 6 Federal Outcome Measures. Federal Outcome Measures 1-5 are all related to infant and perinatal mortality rates and disparities. Activities listed for National Performance Measures (NPM) 1, 7, 8, 11, 15, 17 and 18, along with State Performance Measures (SPM) 3, 4, 6 and 7, are all directly related to improving pregnancy outcomes, along with disparities. National Performance Measures 4, 13 and 14 are indirectly related to the first five Federal Outcome Measures through insurance coverage and can also be related to pregnancy outcomes.

Three Indiana State Performance Measures that are related to the first five Federal Outcome Measures were not met over the past 5 years, and were included again for the next 5 years. The first SPM that was carried over that affects the Federal Outcome Measures is to increase the percent of black women (15-44) whose prenatal visits were adequate. Indiana shows a decreasing trend in this percentage, and is working with the minority health coalition, the March of Dimes and the Indiana Perinatal Network to create a prematurity reduction initiative coalition to reduce disparities in adequacy of care and negative birth outcomes. The second SPM linked with a Federal Outcome Measure is to decrease the proportion of births occurring within 18 months of a previous birth to the same mother. Indiana started research on this SPM over the past 5 years and would like to further analyze the data to help create programs to decrease this proportion. The third SPM Indiana carried over, decrease the percentage of children aged 72 months and below with blood lead levels 10+ Micrograms per liter, is linked to Federal Outcome Measure 6.

Federal Outcome Measure 6, the child death rate, is impacted by SPM's 1, 5, 9, and 10, and also by NPM's 7 and 10. Indiana carried over SPM 5 because Indiana is increasing the number of children it screens for lead poisoning every year over the past 5 years and moving forward, so it is important to continue this positive trend and analyze the data to receive accurate results to implement programs to help lower the lead level in children below 72 months of age. Indiana works closely with outside agencies to lower the number of deaths to children under 14. Indiana has a new Injury Prevention Program staring in 2010 that is working closely with MCH/CSHCN divisions, domestic violence programs, child neglect programs, lead programs, immunizations programs, the infectious disease programs, and chronic disease programs, including Asthma. All these programs will collaborate over the next five years to improve health, or access to health, for women, infants, children and children with special health care needs, while eliminating disparities of care, to lower negative health outcomes of Indiana residents.

C. Annual Needs Assessment Summary

Changes in Population Strengths and Needs

Since the last Five Year Needs Assessment, Indiana has witnessed changes in the population's strengths and needs. These changes have resulted in the retirement of six SPMs, the modification of two SPMs, and the retention of two of the eight SPMs contained in the last needs assessment. To more accurately target the population's needs, Indiana has developed six new SPMs for this year's needs assessment, creating a total of ten. The following ten SPMs contained in this needs assessment are reflective of the progress Indiana has made in a number of areas in MCH and CSHCS programs. They are also evidence of the continued need to reduce disparities and strengthen the health and well-being of Indiana's mothers, babies, children, children with special health care needs, and women of childbearing ages.

1. *Reduce the rate of sudden unexpected infant deaths due to SIDS, and accidental suffocation and strangulation in bed 5% yearly.* Unsafe sleep practices have been shown to cause Sudden Unexplained Infant Deaths (SUID) including SIDS and unintentional suffocation that occurs when an infant is placed on its stomach to sleep, on an unsafe sleep surface, or shares a sleep surface with adults, other children or pets. Indiana has a high rate of suffocation among infants.
2. *Increase the percent of mothers who breastfeed exclusively through three months of age.* Exclusive breastfeeding is ideal nutrition and sufficient to support optimal growth and development for approximately the first 6 months after birth. The emphasis on exclusivity is new for 2011-2015.
3. *Decrease the percentage of pregnant women on Medicaid who smoke during pregnancy by 0.5% each year from a baseline of 30% in 2007.* Fifty-one percent of all pregnant women in Indiana are on Medicaid at time of birth. Smoking rates among pregnant women on Medicaid have been found to be 1.5 times that for pregnant women not on Medicaid.
4. *Increase the percentage of black women (15 through 44) with a live birth during the reporting year whose prenatal visits are adequate to 66.5%.* Early and adequate prenatal visits are important for positive birth outcomes. Indiana aims to lower the disparity for black women receiving adequate prenatal care.
5. *Decrease the percentage of children age 72 months and below with blood lead levels equal to or greater than 10 Micrograms per deciliter to .80% of the total children tested.* The projection for total tested is 80,000 with 640 elevated.
6. *The percentage of births that occur within 18 months of a previous birth to the same birth mother will be reduced to 12% in 2009.* According to the ISDH report Short Interpregnancy Intervals and the Risks of Adverse Birth Outcomes in Indiana: Statistics from the Live Birth Data 1990-2005, 44.5% of all pregnancies were conceived within 24 months of the last pregnancy, 18.8% were conceived within less than 12 months, and 6.2% in less than 6 months.
7. *Decrease total preterm birth percentages by 15% by 2015 from 12.9% in 2007 to 10.9% by 2015. B. Decrease late preterm births due to cesarean delivery with no medical reason among Indiana resident births by 50% from 10.2% in 2006 to 5.1% by 2012.* In 2008, the March of Dimes announced that Indiana had a failing grade due to a number of perinatal

indicators including late preterm births. The consistent escalation of our preterm rate has created major concerns in the public health community and prompted an MCH investigation into the patterns of preterm births and the potential contributing factors.

8. *Decrease the percent of high school students who are obese by 3% (from 12.8 to 11.3) over 5 years.* The Indiana Healthy Weight Initiative Task Force and DNPA have continued development work on a state obesity prevention plan that addresses issues related to childcare, school settings, and special populations. By the end of August 2010, the Indiana Healthy Weight Initiative Task Force and the DNPA will complete, publish, and disseminate a state plan for obesity prevention.
9. *Reduce the percentage of Chlamydia and gonorrhea among adolescents ages 15-19 from 13.6% to 12% and 4% to 2.5% respectively.* An increase in sexual activity among adolescents and young people in Indiana and the United States has lead to an alarming number of teen pregnancies and an increase in the rates of sexually transmitted infections.
10. *(Developmental) Capacity for promoting social and emotional health in children from birth to age 5.* Early social and emotional competence is associated with continued competence and may help reduce the risks for later problem behaviors.

Changes in MCH Program Capacity

There have been a number of changes in Title V capacity over the past five years. New leadership has brought new expertise, experience and perspectives to combat public health issues. Specifically, Gregory N. Larkin, M.D., FAAFP, was appointed by Governor Daniels as the Indiana State Health Commissioner in March 2010. As of June 2010, Dawn Adams is the Interim Assistant Commissioner of the Health and Human Services (HHS) Commission. HHS includes the Office of Women's Health, Nutrition and Physical Activity, WIC, Chronic Disease, Children's Special Health Care Services (CSHCS) and Maternal and Child Health (MCH). MCH and CSHCS are responsible for administering and coordinating all parts of the Title V Block Grant for Indiana. In the Health and Human Services Commission, Mary M. Weber, MSN, RN, NEA-BC, became the new Director of the Maternal & Child Health Division in October 2009. Kimberly Minniear became the new Director of CSHCS in February 2010, after serving as the Director of Integrated Community Services since May 2007. Also, in April 2010, James R. Miller, DDS was hired as the Director of Oral Health and Mary Ann Galloway, MPH, was hired as Director of Life Course Health Systems in the Maternal and Child Health Division.

Additionally, Indiana has strengthened its Title V capacity through the addition of numerous partners and collaborators. Indiana recognizes that improvements in health outcomes must involve partners and collaborators in private, public, and governmental agencies, communities, educators, researchers, and the general public. Indiana will continue to build relationships across the State to ensure Indiana reduces negative health outcomes while eliminating disparities and barriers to services.

With this new leadership, MCH is rethinking its previous strategies and initiatives. The leadership is moving toward a life course health systems approach for maternal and child health, recognizing the need for new initiatives that especially target disparity and address socio-economic factors that influence health outcomes.

Indiana has also strengthened its Title V capacity through the addition of numerous partners and collaborators. Indiana recognizes that improvements in health outcomes must involve partners and collaborators in private, public, and governmental agencies, communities, educators, researchers, and the general public. Indiana will continue to build relationships across the State to ensure Indiana reduces negative health outcomes while eliminating disparities and barriers to services.

Indiana will continue to work with its partners, including public and private agencies, government agencies, communities, educators, researchers, and the general public to meet Indiana's goals. The table of partners can be found within the *Needs Assessment*.

Indiana's capacity to meet the health needs of the MCH and CSHCN population has not changed greatly over the past 5 years. Even with the new leadership strengthening the MCH/CSHCN programs, ISDH alone cannot affect needed improvements in health of Hoosiers across the state. Indiana must continue to improve and utilize collaboration with other state agencies, private and public partners, and the general public to ensure Indiana reduces negative health outcomes while striving to eliminate barriers to access to care and disparities.

Appendix 1
Primary Care Providers by County/Metropolitan Statistical Area

MSA	County	Primary Care Physicians and Non-Physicians						
		Family Medicine	General Internal Medicine	General Pediatric	Osteopathic	Primary Care Physician Assistants	Nurse Practitioners	TOTAL
None	Adams	11	2	0	0	0	3	16
Fort Wayne	Allen	111	43	31	67	8	83	343
None	Bartholomew	30	19	15	3	1	14	82
None	Benton	3	0	0	0	0	2	5
None	Blackford	6	2	0	0	0	2	10
Indpls-Carmel	Boone	28	28	19	13	2	8	98
None	Brown	5	1	1	2	0	4	13
None	Carroll	6	0	0	1	0	5	12
None	Cass	11	4	3	3	0	4	25
IN-KY	Clark	24	23	9	7	3	20	86
Terre Haute	Clay	6	3	1	2	3	2	17
None	Clinton	6	2	2	1	0	3	14
None	Crawford	0	0	0	0	0	2	2
None	Davies	4	3	2	10	0	9	28
None	De Kalb	20	2	1	4	1	3	31
OH-KY-IN	Dearborn	10	9	8	4	0	1	32
None	Decatur	2	3	2	1	1	3	12
Muncie	Delaware	44	37	13	10	1	29	134
None	Dubois	15	9	4	11	1	5	45
Elkhart-Goshen	Elkhart	59	18	14	31	5	32	159
None	Fayette	7	3	2	4	0	6	22
KY-IN	Floyd	32	6	13	2	1	8	62
None	Fountain	3	1	0	0	0	0	4
OH-KY-IN	Franklin	1	2	0	0	2	1	6
None	Fulton	6	1	3	3	1	4	18
IN-KY	Gibson	6	3	1	9	1	3	23
None	Grant	17	9	4	18	1	10	59
Bloomington	Greene	8	0	0	3	0	5	16
Indpls-Carmel	Hamilton	107	104	56	41	8	36	352
Indpls-Carmel	Hancock	31	7	4	5	0	12	59
KY-IN	Harrison	13	2	2	1	0	4	22
Indpls-Carmel	Hendricks	32	17	17	17	3	9	95
None	Henry	13	4	3	0	0	8	28
Kokomo	Howard	28	18	9	6	2	3	76
None	Huntington	13	2	7	3	0	2	27

None	Jackson	22	1	2	1	3	6	35
IL-IN-WI	Jasper	15	2	0	1	0	4	22
None	Jay	7	1	0	1	0	2	11
None	Jefferson	17	3	3	2	1	3	29
None	Jennings	5	4	1	3	0	6	19
Indpls-Carmel	Johnson	49	26	20	8	0	15	118
None	Knox	10	10	4	14	0	8	46
None	Kosciusko	29	2	4	13	4	7	59
Michigan City-LaPorte	La Porte	34	19	8	10	0	17	88
None	Lagrange	8	1	0	2	0	1	12
IL-IN-WI	Lake	121	103	62	95	0	70	451
None	Lawrence	10	9	4	2	0	7	32
Anderson	Madison	59	10	8	1	0	17	95
Indpls-Carmel	Marion	277	249	160	108	20	358	1172
None	Marshall	25	1	1	11	0	7	45
None	Martin	1	2	0	2	0	1	6
None	Miami	6	2	3	3	0	4	18
Bloomington	Monroe	47	24	12	6	4	36	129
None	Montgomery	13	4	4	2	0	7	30
Indpls-Carmel	Morgan	10	10	4	7	1	4	36
IL-IN-WI	Newton	1	1	0	1	0	3	6
None	Noble	15	2	1	1	0	2	21
OH-KY-IN	Ohio	0	0	0	0	0	0	0
Bloomington	Orange	11	0	1	2	0	3	17
Bloomington	Owen	3	2	0	0	1	2	8
None	Parke	7	0	0	0	0	1	8
None	Perry	8	1	1	1	0	1	12
None	Pike	3	0	0	0	0	2	5
IL-IN-WI	Porter	41	31	11	30	1	20	134
IN-KY	Posey	5	0	0	1	0	0	6
None	Pulaski	6	0	0	3	0	3	12
Indpls-Carmel	Putnam	12	3	0	0	1	1	17
None	Randolph	5	3	0	3	0	6	17
None	Ripley	10	3	5	2	1	2	23
None	Rush	4	3	0	1	0	2	10
None	Scott	9	1	1	0	0	6	17
Indpls-Carmel	Shelby	8	6	1	1	0	2	18
None	Spencer	7	0	0	0	0	1	8
IN-MI	St. Joseph	113	43	30	75	1	51	313
None	Starke	6	0	0	3	0	3	12
None	Steuben	14	1	0	2	1	1	19
Terre Haute	Sullivan	4	2	0	1	1	2	10
None	Switzerland	0	0	0	0	0	1	1
Lafayette	Tippecanoe	46	35	22	16	0	37	156

Kokomo	Tipton	7	0	0	2	0	0	9
None	Union	4	1	0	0	0	0	5
IN-KY	Vanderburgh	103	37	21	18	2	41	222
Terre Haute	Vermillion	1	1	0	1	0	5	8
Terre Haute	Vigo	53	33	10	20	1	18	135
None	Wabash	13	1	0	2	0	3	19
None	Warren	1	0	0	2	0	1	4
IN-KY	Warrick	30	20	9	7	0	12	78
KY-IN	Washington	8	4	1	0	0	1	14
None	Wayne	19	20	4	14	0	13	70
Fort Wayne	Wells	14	3	5	4	2	5	33
Fort Wayne	White	10	0	0	0	0	1	11
Fort Wayne	Whitley	9	1	0	5	0	2	17

Source: Issue Brief: Indiana's Health Professions Workforce Shortages & Mal-distribution, October 2007 and www.stats.indiana.edu: Indiana's Metropolitan Statistical Areas

Appendix 2
MCH Grant List

Grant	Acronym	Grant #	Grant Amount	Funding Source	Fed./ State	Acct. Finance	Fund	Project Code
Title V Maternal & Child Health	**MCH**	B04MC17028	$11,770,865	DHHS/ HRSA	Fed.	Thomas Lauck	61910	4003620141600
MCH Supplemental	**MCH/S**		$190,000.	Tobacco	State	Thomas Lauck	61910	
Children's Special Health Care	**CSHCN**		$13,862,070	General Fund	State	Thomas Lauck	13200	
Newborn Screening	**NS**		$2,661,643.	Fee Based	State	Thomas Lauck	31910	
Early Hearing Detection & Intervention	**EDHI**	5UR3DD000425	$172,201.	DHHS/ CDC	Fed.	Zachary Cole	61910	4003610103900
Early Childhood Comprehensive System Planning	**ECCS**	H25MC00263	$140,000.	DHHS/ HRSA	Fed.	Tamara Poteet	61910	4003610154600
Birth Problems Registry	**BP**		$124,460.		State	Tom Wagner	34610	
Project Respect	**PR/S**		$494,872.	Tobacco	State	Tamara Poteet	14560	
State Chronic Disease	**SCD**		$83,000.	Tobacco	State	Zachery Cole	15960	
Sickle Cell	**SC**		$250,000.	Tobacco	State	Thomas Lauck	11490	
Universal Newborn Hearing Screening	**UNHS**	H61MC00059	$339,913.	DHHS/ HRSA	Fed.	Thomas Lauck	61910	4003610150600
Indiana Newborn Screening Tracking & Education Program	**INSTEP**	U22MC16507	$400,000.	DHHS/ HRSA	Fed.	Thomas Lauck	61910	4003610160430
Integrated Community Systems (CISS)	**ICS**	D70MC12842	$300,000.	DHHS/ HRSA	Fed.	Thomas Lauck	61910	4006000106760
Data Integration	**SSDI**	H18MC00017	$93,713.	DHHS/ HRSA	Fed.	Kathy Hurst	61910	4003610146700
Prenatal Substance Use Program	**PSUP**	MOU DMHA/FSSA	$400,600.		Fed.	Tamara Poteet	61910	4003610145500
Donated Dental Services	**DD**		$42,932.	Tobacco	State	Tamara Poteet	10940	
Oral Health Workforce Activities Program	**OHWA**				Ended	Tamara Poteet	61910	
Test For Drug Afflicted Babies	**TDAB**		$58,000.	Tobacco	State	Thomas Lauck	14680	
Dental Services for the Handicapped & Aging	**DSHA**				Ended	Tamara Poteet	61910	
YRBS		MOU ISDH/DOE	$72,659.			Monica Prizevoits	61910	4003610155700
Seal Indiana (PHS block Grant)		3B01DP009019 (PHS Award)	$75,000.	CDC	Fed.	Ed Pastorius	61910	4003610146600
McCOY		3B01DP009019 (PHS Award)	$20,000.	CDC	Fed.	Ed Pastorius	61910	4003610146600
Tobacco Prenatal Substance Use & Prevention	**TPSP**		$150,000.	State	Fed.	Tamara Poteet	30430	
Abstinence Education					Ended	T. Poteet		
MCH Family Planning	**IFHC**	MOU	$1,634,891.	Title X	Fed.	Thomas	62130	

Project		ISDH/TANF				Lauck		
MCH Family Planning Project	**IFHC**	MOU ISDH/DCS	$369,554.	Title X	Fed.	Thomas Lauck	61910	
Total			$33,706,373					

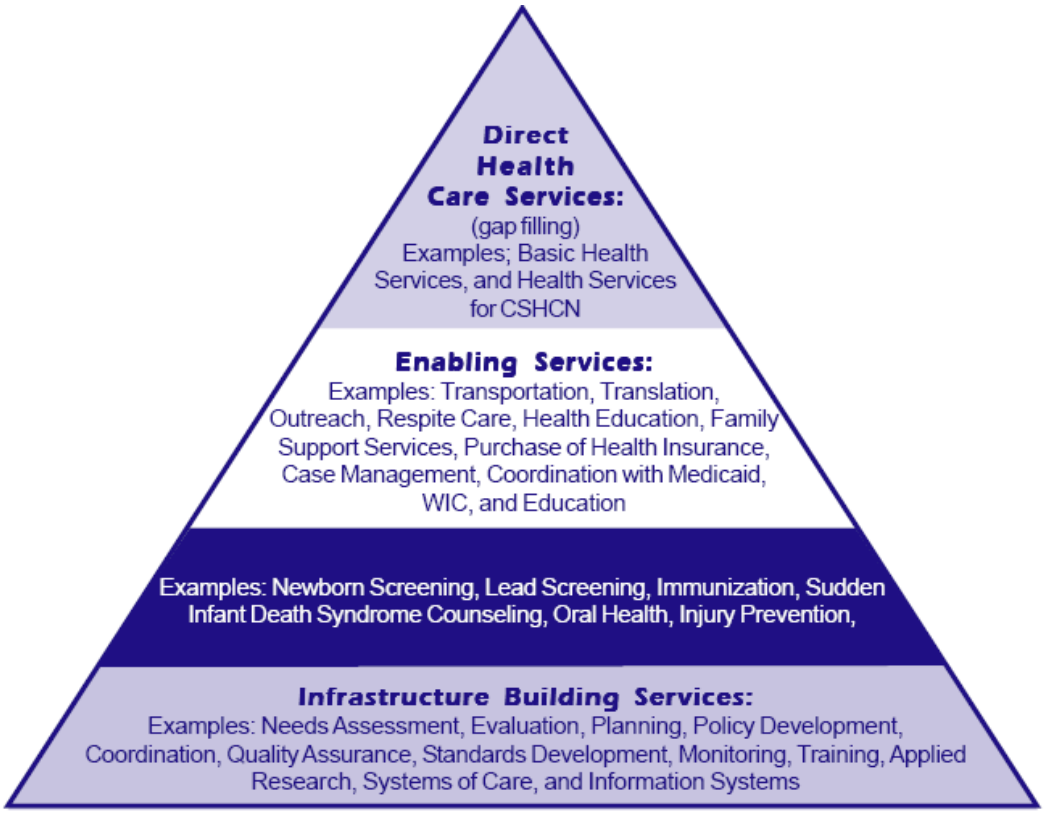
*Department Codes: Department Codes are assigned by Divisions MCH & CSHCN is 195069
**Fund Codes: Fund Codes are only assigned to Federal funds
***Project Codes: Project Codes are listed with 13 numbers, but requires 15 numbers the last two numbers are consistent with the budget year and change based on that year (contact acct. or someone in grants unit).

Appendix 3

Division of Maternal Child Health
and
Children's Special Health Care Services
of the
Indiana State Department of Health

Indiana Title V State Performance Measures
For FY 2011 to 2015

Submitted July 15, 2010



Protecting and Improving the Health of Indiana's Families

The 2011 to 2015 State Performance measures are the result of a multi-year process of collecting and analyzing data as well as working in collaboration with many partners to assess the needs of pregnant women, infants, children, adolescents, women of childbearing age, and children and youth with special health care needs. Specifically, to identify the new State Performance Measures (SPM) Title V staff examined existing capacity including services, partnerships, collaborations; health status and health capacity indicators; and the information in Section B.3 of the Five Year Needs Assessment. All of this information, as well as information from subject matter experts and qualitative data from collaborators, resulted in the identification of 50 health issues. Through the process described in the Needs Assessment document Section B.2, the 50 health issues were reduced to 10 top State priorities. These priorities became the 10 State Performance Goals. Summarized in the following paragraphs are the top issues that led to the SPMs. After the summary, each SPM is described in detail, including FY 2010 activities and activities planned for 2011.

For pregnant women, priority healthcare needs include decreasing smoking during pregnancy, with emphasis on the Medicaid population; increasing the percentage of black women having adequate prenatal care; decreasing the percentage of births occurring within 18 months of a previous pregnancy to the same mother; and increasing the percentage of women who initiate exclusive breastfeeding.

Smoking during pregnancy increases the risk for both a preterm delivery as well as a low birth weight baby. Although the smoking during pregnancy rate has declined in general in Indiana, the rate is still very high for certain populations or locales. Activities to address this issue include providing training and materials to prenatal Medicaid providers; assessing/comparing counties with highest and lowest smoking rates to determine successful anti-smoking strategies; and working with Indiana Tobacco Prevention and Cessation (ITPC)/Indiana Preventing Smoking in Pregnancy Initiative to explore successful cultural and literacy appropriate educational messages targeted to low income women.

During the period from 2002 to 2006, the percentage of women, overall, receiving prenatal care within the first trimester declined from 80.5% to 77.6%. The percentage of black women who received adequate prenatal care decreased from 68.6% to 65.6% over this time period. To address the low level of entry into prenatal care for black women, the new focus will target counties having a lower percentage of black women entering prenatal care in the first trimester. Initiatives will include free pregnancy tests, development of a Premature Birth Initiative especially for black women, and collaboration with the National Fatherhood Initiative's train-the-trainer workshops.

Short interval pregnancies are an important issue because these pregnancies increase the risk for adverse outcomes, such as low/very low birth weight babies; premature births and small for gestational age infants. Activities to address birth spacing will include training providers and clinic staff on preconception best practices and new family planning methods; application of quality improvement techniques to reduce opportunities for screening and health promotion to women, before, during and after pregnancy; and integration of reproductive health messages into existing state health promotion campaigns

Although breastfeeding rates have consistently increased over the past several years to an overall rate of 66.5%, Indiana's breastfeeding rate still falls below not only the national average but also the Healthy People 2010 goal of 75%. Black women, in particular, have low levels of breastfeeding rates. Efforts to increase the rates of breastfeeding in Indiana during the next five years will focus on continued collaboration with state-wide groups to support local coalitions; initiation of a recognition program acknowledging Baby Friendly Hospitals; and collaboration with partners to build tiers of support for breastfeeding from community drop-in centers providing support to mothers to education on breast milk storage for day care centers,

Two problems concerning infants require a special focus: prematurity rates and accidental suffocation under one year of age. Although prematurity birth rates are at about the national average, prematurity rates for blacks are more than double that of the overall rate. Creation of a statewide plan that addresses prematurity issues is proposed with the Preterm Birth Executive Group driving system change through policy, standards and tools. Increasing both public and provider awareness as to all aspects of prematurity is also a goal.

The infant mortality rate for 2007 was 7.5 deaths per 1000 live births, higher than the Healthy People 2010 goal of 4.5 deaths. Reducing the rate of suffocation deaths in infants will impact this mortality rate. MCH activities to impact this number will center around communication of safe sleep practices/updates to nurse managers/nursing staff and provision of parent education. MCH will also work with First Candle, Indiana Perinatal Network, and local community organizations in the four largest counties to conduct training and educational sessions.

Concerns involving children and adolescents focus on lead poisoning, sexually transmitted infections (STIs), obesity, and social-emotional heath of very young children. Although the number of confirmed cases of lead poisoning in children (below age 72 months) has declined, lead poisoning remains a silent menace that can cause irreversible damage. MCH will continue to work with Medicaid to increase the number of children screened and work with Indiana Lead and Healthy Homes Program (ILHHP) to increase the number of homes remediated.

Reduction in the number of STIs is another state objective. Strategies to reduce the STI numbers include providing education and materials to providers treating adolescents, conducting a needs assessment to determine barriers to condom use among adolescents in high-risk populations, and partnering with the Family Health Council to increase screening for sexually transmitted infections.

Obesity in high school age children is also a state concern. Recent data indicate that 13.8% of youth to have a BMI greater than the 95^{th} percentile for their age and sex. MCH will be partnering with the Division of Nutrition and Physical Activity in the deployment of the Indiana Healthy Weight Initiative that targets increased consumption of fruits and vegetables, decreased consumption of sugar-sweetened drinks and increased physical activity.

Addressing issues pertaining to the social-emotional health of children under the age of 5 is the final priority health issue. Foremost among these issues is the lack of qualified service providers to treat children is this age bracket. Children at risk for social, emotional, and behavioral problems include cases of neglect, homeless children, children of refuges/immigrants, and

children of deployed military personnel. The proposed state initiative targets capacity building to increase the number of service providers qualified in this area.

FORM 16
STATE PERFORMANCE/OUTCOME MEASURE DETAIL SHEET

State Health Priority 1:	The rate of suffocation deaths of infants.
GOAL	Decrease the percent of infant deaths due to SIDS and accidental suffocation and strangulation in bed by 5% yearly from 40 SIDS deaths and 26 suffocation deaths in 2007 to 30 SIDS deaths and 21 suffocation deaths by 9/30/2015.
DEFINITION	Reduction in the rate of sudden unexpected infant deaths includes SIDS, Unknown Cause, Accidental Suffocation, and Strangulation in Bed. **Numerator:** Number of infant deaths due to SIDS, accidental suffocation and strangulation in bed per year. **Denominator:** Number of all infant deaths per year **Units: ___100___ (Number)** **__Percent (Text)**
HEALTHY PEOPLE 2010 OBJECTIVE	**MICH HP2020-15:** Reduce fetal and infant deaths. Reduction in the rate of sudden unexpected infant deaths (includes SIDS, Unknown Cause, Accidental Suffocation, and Strangulation in Bed). (Retained/modified from HP2010 objective 16-13)) **MICH HP2020-9:** Increase the percentage of healthy full-term infants who are put down to sleep on their backs. (Retained Healthy People 2010 objective 16-13.)
DATA SOURCES AND DATA ISSUES	**Source**: National Infant Sleep Position Study (NISP), NIH, NICHD., Indiana vital records, Indiana FIMR, **Issues:** 1. Incomplete death certificate data. 2. Inaccurate infant death diagnosis. 3. Legislation not broad enough to require sharing of death documents by healthcare providers, police, coroners. 4. Lengthy MOU process with outside researchers needing access to vital record data. 5. Long delays in public release of state vital records.
SIGNIFICANCE	In 2007, there were 40 SIDS deaths and 26 deaths due to accidental suffocation or strangulations in bed. Accidental suffocation and strangulation in bed is a leading mechanism of injury-related infant deaths and is preventable.

State Health Priority 1: Rate of suffocation deaths of infants

Performance Objective: Reduce the number of sudden unexpected infant deaths due to SIDS, and accidental suffocation and strangulation in bed 5% yearly.

Overview: This is a new state performance measure that will be addressed during the FY 2011-2015. Unsafe sleep practices have been shown to cause Sudden Unexplained Infant Deaths (SUID) including SIDS and unintentional suffocation that occurs when an infant is placed on its stomach to sleep, on an unsafe sleep surface, or shares a sleep surface with adults, other children or pets. An Indiana study of SUID deaths during the years of 2003-2005, showed that 10.8% of all infant deaths were categorized as SUID. Of the 221 SUID deaths during this time period, 45.7% were attributable to unintentional suffocation deaths. Among four major Indiana counties (Allen, Lake, Marion, and St. Joseph); Allen County has the highest SIDS rate; Lake County has the highest accidental suffocation and strangulation in bed rate; Marion County has the highest other accidental suffocation rate. 2007 vital record data shows that there were 40 SIDS deaths, down from 42 in 2006, and 26 accidental suffocation and strangulations in bed, up from 18 in 2006. A baseline of 66 total SUID deaths due to SIDS and accidental suffocation in bed is created.

FY10 Current Activities:

1. The MCH Infant Health and Survival Council meets quarterly at ISDH to address SUIDs and bereavement services. The Council plans and facilitates the bi-annual Infant Health and Survival Conference. The bi-annual conference is scheduled for October 2010, and is a vehicle for updating health care professionals on the latest research, latest Indiana statistics, and provide education on SUID recommendations, interventions and policies.

2. A subcommittee of the Infant Health and Survival Council worked on a model safe sleep policy to be given to delivering hospitals as a template of policies all delivering hospitals in Indiana should develop to include staff training and parent education. The model policy has been completed and was placed in the February Perinatal Perspective newsletter.

3. MCH collaborates with the Gates Foundation sponsored First Candle 2010 Crib Program by providing vital record data for program evaluators, attending advisory board meetings, and linking First Candle consultants with local stakeholders.

4. MCH funds a state SIDS coordinator, through Indiana Perinatal Network (IPN), who is responsible for conducting 3 emergency responder trainings on SIDS per Indiana Code. State SIDS Coordinator and First Candle Crib Program Coordinator have facilitated NIH safe sleep trainings at two hospitals.

FY 2011 Planned Activities:

1. MCH will partner with First Candle and IPN to facilitate two regional NIH Model Nurse train-the-trainer trainings for hospital nursery/NICU managers/educators and will:
    - Compile a list of hospital nursery managers for ongoing communication purposes.

- Conduct a three month follow-up with training attendees to evaluate if trained staff went back to their hospital and trained all nursery and NICU staff.
- Communicate safe sleep updates, including data and new research, twice a year, to nurse managers to share with nursery/NICU staff

2. MCH will partner with First Candle and IPN to provide technical assistance to delivering hospitals to develop and implement a best practice model safe sleep hospital policy that includes guidelines for physician and nursing care practices and parent education. In addition, MCH and partners will:
    - Share model policies, including the Hospital Policy Template created by the Infant Health and Survival Council with hospitals during NIH Safe Sleep staff trainings.
    - Promote information sharing including lessons learned and strategies to provide parent education during Safe Sleep state conferences, IPN Forums, IPN Quarterly Newsletter.
    - Provide technical assistance to hospitals in writing policies and achievable plans of actions, and standardized materials.

3. Provide leadership to community partner organizations in 4 large counties (Allen, Lake, Marion, St. Joseph) to coordinate local summits and enlist the resources of community organizations, faith-based groups, local public health officials, and service organizations in efforts to reduce SIDS and infant suffocation in bed at the local level.
    - MCH and First Candle will conduct training workshops and educational sessions with health professionals, community leaders, outreach workers, and individuals to develop methods for working locally in SIDS risk-reduction activities.

4. MCH will work with state and local partners to design population based interventions and education programs about safe sleep practices for infants that take into account the influence of social determinates and cultural differences.
    - Obtain feedback and advice from communities with high SIDS/asphyxia occurrence on ways to address cultural issues effectively and to identify ways to refine campaign messages in light of racial and cultural characteristics.
    - Develop strategies with community input in the development and implementation of campaign activities.
    - Bring together leaders from business, health insurers, schools, hospitals, foundations, researchers, consumers, and public health and advocacy organizations to promote safe sleep messages.

5. MCH and state partners will explore implementation of a state FIMR review committee in collaboration with the state child death review committee.
    - Pull together state public health and medical personnel to set up a FIMR review committee.
    - MCH consultant will review electronic birth and death certificates for all infant deaths with a cause of death of SIDS and/or suffocation.
    - MCH and team will set up a system to review first responder notes, death scene investigation notes, coroner's report, autopsy report, and medical record to identify commonalities among deaths.

- Explore development of a data MOU with IU School of Public Health and Riley Children's Hospital for study of infant deaths and identification of near misses.

6. Facilitate statewide CDC death scene investigation training for coroners, medical examiners, law enforcement, EMS, deputy coroners and other possible first responders, through partnership with state training team.
    - Seek grant funding to complete SUIDI training in every county.
    - Share information about trainings on weekly county Health Officer conference call.
    - Seek legislation to make the two-day SUDI training mandatory for all coroner's and deputy coroners with use of state Coroner Training Funds to support the training.
    - Prepare an online training of first responders according to Indiana Code.

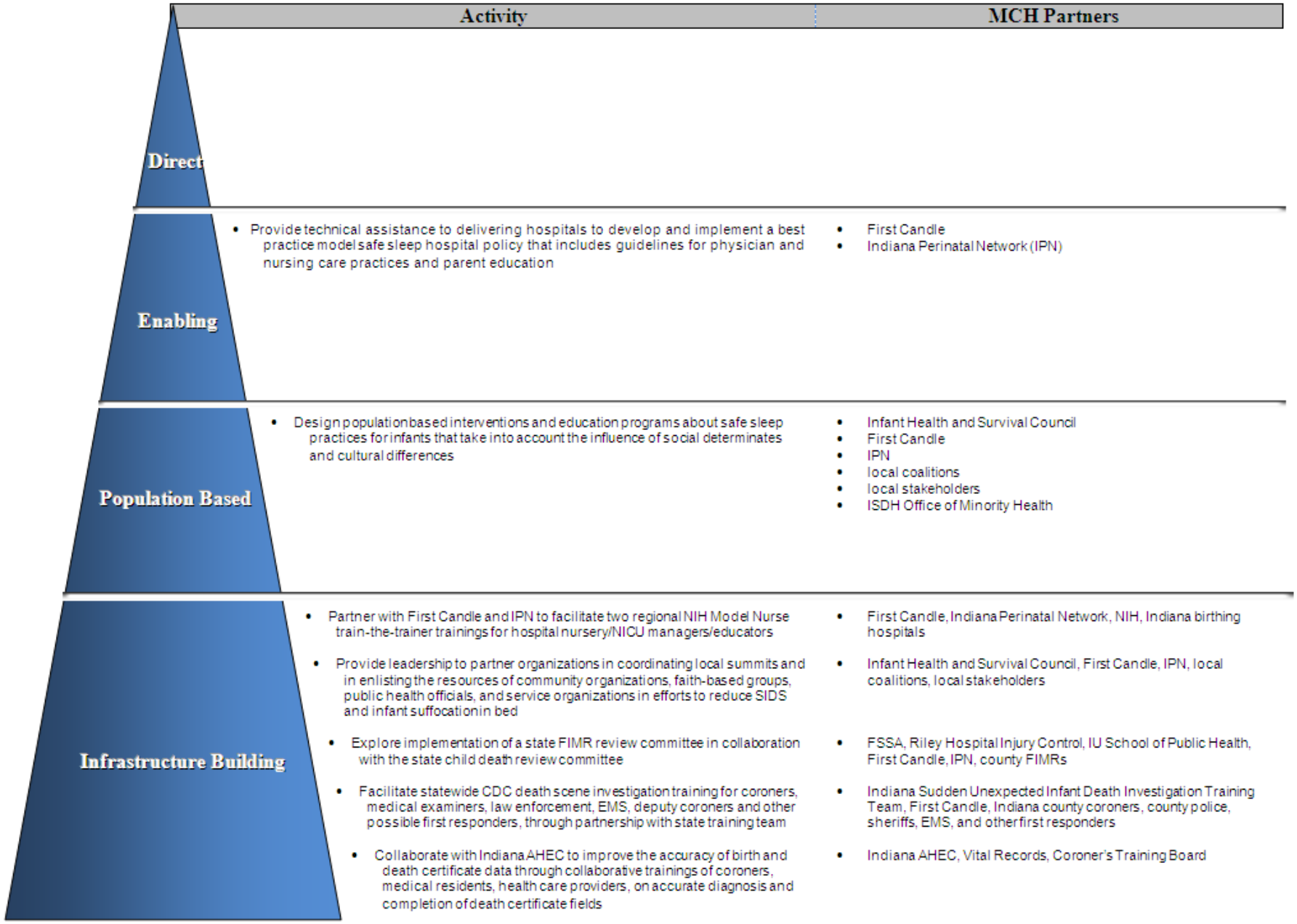
7. Collaborate with Indiana AHEC, Indiana Hospital Association, ISDH Vital Records to improve the accuracy of birth and death certificate data through collaborative trainings of coroners, medical residents, health care providers, in counties with high SIDS, suffocation in bed infant deaths.
    - Seek to get on the agenda of the Annual Coroner's meeting, annual ACOG, AAP, AAFP to present issues with birth/death certificate accuracy.
    - Develop community health education and health provider training programs to be presented at grand rounds, regional training breakfasts.
    - Work with the Coroner's Board and Resident programs throughout the state to set up a system to monitor quality of death certificates after completion of training.

Tracking Performance Measure

Annual Objective and Performance Data	2006	2007	2008	2009	2010
Annual Performance Objective		9.8%			
Annual Indicator		Baseline			
Numerator		66			
Denominator		677			
Data Source	VR total SIDS/suffocation and infant deaths in bed				
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?		final			
	2011	2012	2013	2014	2015
Annual Performance Objective	9.3%	8.9%	8.4%	8.0%	7.5%

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. Partner with First Candle and IPN to facilitate two regional NIH Model Nurse train-the-trainer trainings for hospital nursery/NICU managers/educators.				X
2. Provide technical assistance to delivering hospitals to develop and implement a best practice model safe sleep hospital policy that includes guidelines for physician and nursing care practices and parent education.		X		
3. Provide leadership to partner organizations in coordinating local summits and in enlisting the resources of community organizations, faith-based groups, public health officials, and service organizations in efforts to reduce SIDS and infant suffocation in bed.				X
4. Design population based interventions and education programs about safe sleep practices for infants that take into account the influence of social determinates and cultural differences.			X	
5. Implement a state FIMR review committee in collaboration with the state child death review committee.				X
6. Facilitate statewide CDC death scene investigation training for coroners, medical examiners, law enforcement, EMS, deputy coroners and other possible first responders, through partnership with state training team.				X
7. Collaborate with Indiana AHEC to improve the accuracy of birth and death certificate data through collaborative trainings of coroners, medical residents, health care providers, on accurate diagnosis and completion of death certificate fields.				X

SPM # 1 RATE OF SUFFOCATION DEATHS OF INFANTS



FORM 16
STATE PERFORMANCE/OUTCOME MEASURE DETAIL SHEET

State Health Priority 2:	Percentage of women who initiate exclusive breastfeeding for three months
GOAL	Increase the percent of mothers who breastfeed exclusively through three months of age.
DEFINITION	Number of mothers who indicate that breast milk is the only food their child is fed at three months of age. **Numerator:** Number of mothers who indicate that breastmilk is the only food their child is fed at three months of age. **Denominator:** Number of mothers with infants at 3 months of age**.** **Units: ___100___ (Number)** **__Percent (Text)**
HEALTHY PEOPLE 2010 OBJECTIVE	Objective 16-19: Increase the proportion of mothers who breastfed their babies exclusively through 3 months to 40% (Baseline: 28.9% in 2006)
DATA SOURCES AND DATA ISSUES	**Source:** CDC's National Immunization Survey (NIS) and CDC's State Breastfeeding Report Card
SIGNIFICANCE	Human milk is the preferred feeding for all infants, including premature and sick newborns. Exclusive breastfeeding is ideal nutrition and sufficient to support optimal growth and development for approximately the first 6 months after birth. The advantages of breastfeeding are indisputable and include nutritional, immunological and psychological benefits to both mother and infant, as well as significant economic benefits.

State Health Priority 2: Percentage of women who initiate exclusive breastfeeding for three months

Performance Objective: Increase the percent of mothers who breastfeed exclusively through three months of age. (Exclusive breastfeeding is defined as being fed breastmilk only. Introduction of other substances to an infant such as formula, cow's milk, juice and solid foods in addition to breastmilk does not qualify as "exclusive" breastfeeding.)

Overview: This is a new state performance measure that will be addressed during FY 2011-2015. Human milk is the preferred feeding for all infants, including premature and sick newborns. Exclusive breastfeeding is ideal nutrition and sufficient to support optimal growth and development for approximately the first 6 months after birth. Exclusive breast milk feeding for the first 6 months of life is a goal of the Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (DHHS), American Academy of Pediatrics (AAP) and American College of Obstetricians and Gynecologists (ACOG), among others. Currently, the rate of exclusive breastfeeding at three months in Indiana is 28.9%, while the national average is 33.1% (2006 National Immunization Survey, CDC). The Healthy People 2010 goal is 40%.

FY 10 Current Activities:

1. The State Breastfeeding Coordinator (SBC) has been actively working with local coalitions all over the state, increasing the number of local coalitions to 34 and serving as a resource in their efforts to increase breastfeeding support at the local level.

2. A second black breastfeeding coalition has been formed in a northern Indiana county with the highest black infant mortality rate in the state. These two coalitions target African American mothers with support within their own community, historically one with low breastfeeding rates. The Indiana Breastfeeding Alliance (IBFA) collaborated with staff members at the Indianapolis International Airport to open two private breastfeeding rooms, designated with signs showing the International Breastfeeding Symbol, which opened in March 2010.

3. The SBC secured grant funds to sponsor 15 people to take the exam to become an International Board Certified Lactation Consultant in July 2010. The candidates for the exam were chosen from more than 40 applicants, based on identified communities of need in Indiana, and included four African American and two bilingual candidates.

4. Indiana WIC won a large grant to improve their peer counselor program. They are using the funds to increase infrastructure and resources to support the peer counselor program.

5. Indiana has three hospitals with the Baby Friendly designation and three more that have filed a Letter of Intent to Become Baby Friendly. ISDH MCH will initiate a new program, Can Do 5, aimed eventually at increasing this number.

6. The ISDH Division of Nutrition and Physical Activity (DNPA) continues to partner with IBFA and MCH, providing funds for activities such as education of child care centers on how to store and use pumped human milk and providing small grants to local coalitions who will use them to sponsor breastfeeding tents for mothers at local fairs.

*FY 11 Planned Activities: (*FY 2011 Performance Objective: The percentage of mothers who breastfeed their infants exclusively at 3 months of age will be 31% in FY 2011.)

1. Continue present collaboration with IBFA, IPN and DNPA to build and support local coalitions, identify issues regarding breastfeeding support around the state, trouble shooting and working to increase social support systems for breastfeeding.

2. The IPN, along with ISDH and the IBFA, will host an invitation-only one day forum for selected representatives of all the birthing hospitals in Indiana in September 2010 during which, information will be presented about the Baby Friendly Hospital Initiative as well as the new Joint Commission on Accreditation of Healthcare Organizations (JCAHO) Core Measure Set, one of which is exclusive breastfeeding

3. The IBFA will continue to collaborate with the Indiana Healthy Weight Initiative, the IPN, WIC Purdue Extension and other partners to build in tiers of support for breastfeeding at all levels in the state, including the opening of community drop in centers for breastfeeding mothers

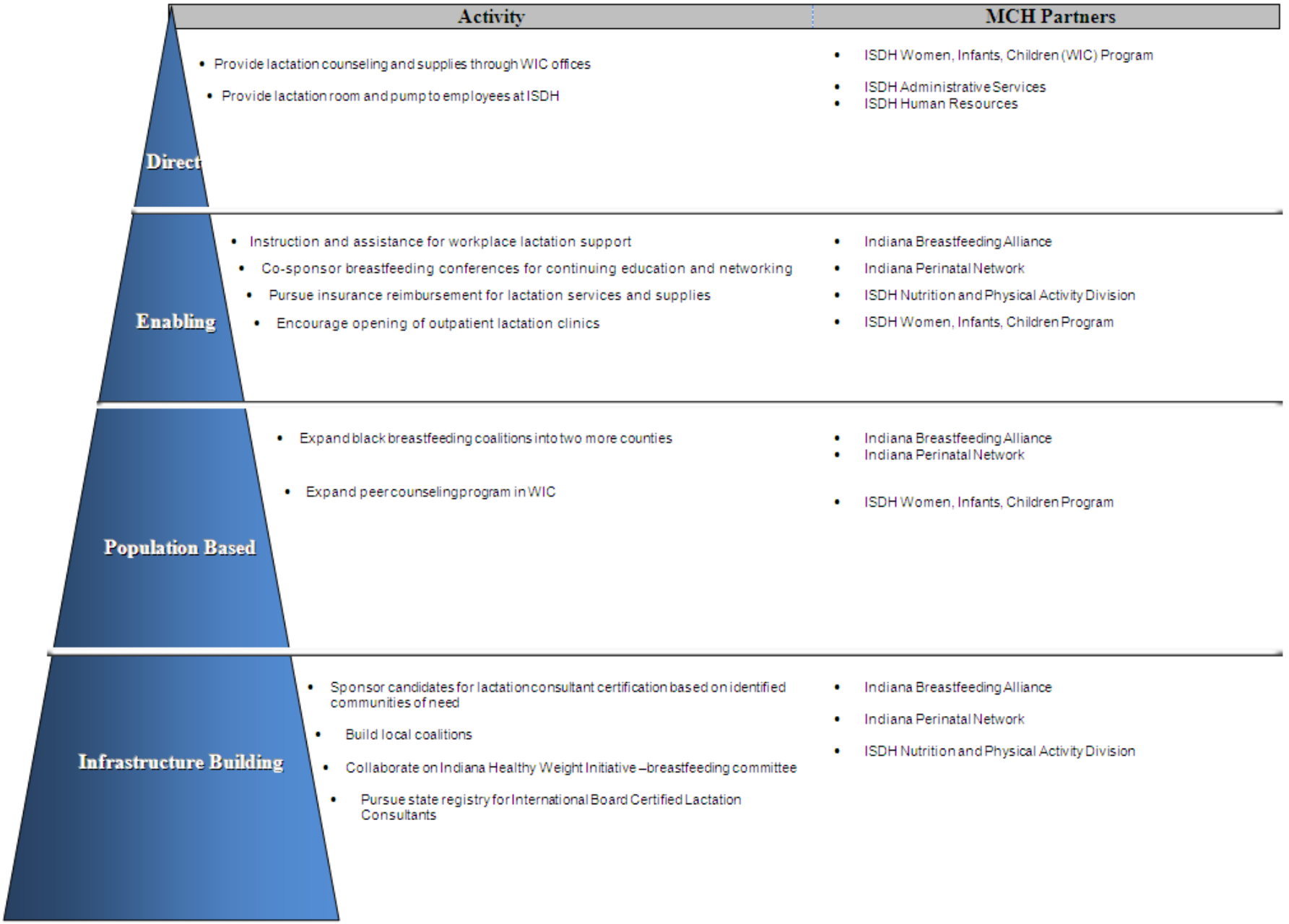
to receive help and encouragement, as well as educating day care centers regarding the proper storage and handling of expressed breast milk.

Tracking Performance Measures

Annual Objective and Performance Data	2006	2007	2008	2009	2010
Annual Performance Objective	28.9				
Annual Indicator	Baseline				
Numerator					
Denominator					
Data Source	National Immunization Survey				
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?	Final				
	2011	2012	2013	2014	2015
Annual Performance Objective	31	33	35	37	39

Activities	**Pyramid Level of Service**			
	DHC	**ES**	**PBS**	**IB**
1. Partnering with IPN to provide education and technical assistance to businesses and women about the Business Case for Breastfeeding		X		
2. Facilitated the formation of a black breastfeeding coalition in a northern Indiana county with the highest black infant mortality rate in the state, which is the second such coalition in Indiana.			X	
3. Participating on the Division of Nutrition and Physical Activity's Indiana Healthy Weight Initiative in development of a state plan with a performance measure of increasing support for breastfeeding.				X
4. Sponsored 15 people to take the exam to become an International Board Certified Lactation Consultant in July 2010. The candidates were chosen from more than 40 applicants, based on identified areas of need in Indiana and included four African Americans and two who were bilingual..				X
5. Indiana WIC won a large grant to improve their peer counselor program. They are using the funds to increase infrastructure and resources to support the peer counselor program.				X
6. Worked with the Indianapolis International Airport to open two rooms designated as private breastfeeding rooms for women to use while in the terminal. The rooms opened in March 2010.		X		

SPM # 2 PERCENTAGE OF WOMEN WHO INITIATE EXCLUSIVE BREASTFEEDING



FORM 16
STATE PERFORMANCE/OUTCOME MEASURE DETAIL SHEET

State Health Priority 3:	Percentage of pregnant women on Medicaid who smoke
GOAL	Decrease cigarette smoking among pregnant women on Medicaid from 27.7% in 2007 to 23% by 2015.
DEFINITION	Number of pregnant women ages 15-44 years, on Medicaid, who decrease or stop smoking. **Numerator:** Number of pregnant women ages 15-44 yrs, on Medicaid, giving birth, who decrease or stop smoking. **Denominator: P**regnant women ages 15-44 yrs, on Medicaid, who give birth, identified as smoking on the Notification of Pregnancy form. **Units: 100 (Number) Percent (Text)**
HEALTHY PEOPLE 2010 OBJECTIVE	**HP2020: 16-17c.** Increase abstinence from cigarette smoking among pregnant women. (Retained/modified from HP2010)
DATA SOURCES AND DATA ISSUES	**Source**: OMPP Notification of Pregnancy Form, Linked Medicaid /Vital record data, Prenatal Case Management Pregnancy Outcome form, MCH funded Quarterly clinic data. **Issues:** **#1** ISDH Birth Certificate data is experiencing a number of errors since going to the electronic birth certificate data base in 2007. Smoking data is not always accurate. **#2** Timely release of Natality data needs to be improved. As of February, 2010, 2007 Natality data has still not been released by the Epidemiology Resource Center. **#3** Medicaid is able to collect and report data monthly for current year, making it difficult to link data.
SIGNIFICANCE	• According to the 2006 Natality Report, 17.1% of all Indiana pregnant women smoked during pregnancy compared to 27.7% of all pregnant women on Medicaid. • Overall, 67 of 92 Indiana counties had higher smoking rates than the state in 2006. • Smoking rates among pregnant women on Medicaid (27%) were three times higher than for pregnant women not on Medicaid. Smoking rates ranged from 40% to 49% in 13 of 92 Indiana counties. • Smoking during pregnancy has been associated with a host of complications, including 40% of all low birth weight, premature rupture of the membranes, placenta previa, placental abruption, and preterm birth

State Health Priority 3: Percentage of pregnant women on Medicaid who smoke

Performance Objective: Decrease the proportion of pregnant women on Medicaid who smoke during pregnancy by 0.5% each year from a baseline of 27.7% in 2007.

Overview: This is a new state performance measure that will be addressed during FY 2011-2015. Indiana has seen a decreasing trend in smoking during pregnancy from 19.1% in 2002 to 17.3% in 2006. However, 17.3% smoking in pregnant women is still too high and not acceptable. Fifty-one percent of all pregnant women in Indiana are on Medicaid at time of birth. Smoking rates among pregnant women on Medicaid have been found to be 1.5 times that for pregnant women not on Medicaid. In 2009, ISDH linked Medicaid patient data to 2007 vital record data. Results showed that an average of 27.7% of all women delivering a live baby on Medicaid smoked during pregnancy in 2007, compared to 17.3% for all pregnant women in Indiana. What was even more alarming was that 68 of 92 counties had a smoking rate of 30% or greater. Thirteen counties had smoking rate of 40-49%. MCH will collaborate with the Office Medicaid Policy and Planning (OMPP), Medicaid Managed Care Organizations, Indiana Tobacco Prevention and Cessation (ITPC), Indiana Tobacco Quitline, and other state and local partners to reduce smoking in pregnancy among the Medicaid population.

FY 2010 Current Activities:

1. MCH continues to meet with OMPP, managed care organizations (MCOs), Smokefree Indiana, ITPC, and the Indiana Preventing Smoking in Pregnancy Initiative (PSPI) to plan and implement activities that will decrease smoking in pregnancy. The Clarian Health and the PSPI collaborative media grant from ITPC was renewed and more counties will be targeted with smoking cessation media messages.

2. The MCH Perinatal Nurse Consultant continues to sit on the OMPP Neonatal Quality Committee. The OMPP Neonatal Quality Committee provides advice and collaborative efforts to decrease smoking in pregnancy. Indiana Medicaid has chosen smoking cessation in pregnancy as one of two initiatives to be addressed by the Neonatal Quality Committee over the next year. Medicaid is paying for ten smoking cessation counseling sessions through the Indiana Tobacco Quitline for all pregnant women on Medicaid that smoke.

3. The Neonatal Quality Committee has developed new media messages to be included in the new pregnant member folders of the three Medicaid MCOs. The Quitline Fax Referral will be promoted among providers of each MCO and training on the Fax Referral will be provided by Clarian and Smokefree Indiana to all MCO provider outreach staff.

4. MCH is working with OMPP and the MCOs to monitor and update the Notification of Pregnancy (NOP) form. The form, which is completed by Medicaid prenatal care providers at the initial prenatal visit, includes assessment of smoking status, readiness to quit, and referrals made for smoking cessation. The NOP was implemented on July 1, 2009. Initial summary reports show current tobacco use among pregnant women to be 30.8%. Assessment of readiness to quit shows 67.6% of pregnant smokers stated they were ready to quit in next 30 days. Providers listed that they referred 60.7% of those ready to quit to the Tobacco Quitline but the Tobacco Quitline has not seen an increase in provider Fax

Referrals. OMPP has charged the MCOs with monitoring referrals of enrolled providers to promote use of the Tobacco Quitline and Fax Referral through provider bulletins, office visit trainings.

5. The PSPI's training subcommittee presented six provider trainings on smoking cessation in pregnancy, how to complete the Indiana Tobacco Quitline Fax Referral, and how to use other evidenced based cessation methods.

FY 2011 Planned Activities:

1. Develop and support state and local partnerships with representation from key public and private entities to provide a comprehensive infrastructure for prenatal smoking awareness activities

2. Continue to meet with OMPP, MCOs, Smokefree Indiana, ITPC, and PSPI to plan and implement activities that will decrease smoking in pregnancy. PSPI collaborative will apply for continued funding of the media grant from ITPC, and will explore other funding sources.

3. Attend monthly meetings of the PSPI made up of ITPC, Clarian Health, ACOG, American Lung Association, March of Dimes, Marion County Health Department, Indiana Perinatal Network, IU School of Medicine Women's Center of Excellence, Latino Institute, American Cancer Society, Smoke Free Indiana, Various PSUPP Directors, OMPP, and MCOs. Attend all meetings of the Medicaid Neonatal Quality Outcomes committee to work on prenatal smoking cessation among the Medicaid population.

4. Continue to participate on the OMPP Neonatal Quality Committee. The OMPP Neonatal Quality Committee provides advice and collaborative efforts to decrease smoking in pregnancy. Indiana Medicaid has chosen smoking cessation in pregnancy as one of two targeted initiatives to be addressed by the Neonatal Quality Committee. Medicaid is paying for ten smoking cessation counseling sessions through the Indiana Tobacco Quitline for all pregnant women on Medicaid who smoke.

5. Provide training and materials to prenatal Medicaid providers through each MCO to promote the use of evidenced based screening and referral to the Indiana Tobacco Quitline. Members of the PSPI training subcommittee will continue to provide regional trainings throughout the year for health care providers working with pregnant women.

6. Assess counties with the highest smoking rates and the lowest smoking rates to identify what works and what does not work to decrease smoking among low income pregnant women on Medicaid.

7. Conduct ongoing assessment of prenatal smoking data using monthly NOP data; vital records, Title V funded project quarterly reports, by county, race, Medicaid versus Non-Medicaid, and will create and disseminate prenatal smoking data briefs to prenatal care provider, local health departments, and community policy leaders.

8. Create and disseminate prenatal smoking data briefs based on age, race/ethnicity, insurer, and geographical location of the targeted population. MCH will use data briefs to educate health care providers, local health department staff, community policy leaders, and consumers about

the prevalence of smoking during pregnancy, including the consequences of smoking before, during and after pregnancy, best practice models for awareness activities to target low income women, and proposed best practice models to decrease smoking among women of childbearing age across the lifespan.

9. Increase awareness of the significance of smoking during pregnancy among health care providers, women of childbearing age, and pregnant women on Medicaid through media messages. Work with ITPC and PSPI to explore successful culturally and literacy appropriate educational messages targeted to low income women as a precursor to development of a statewide media campaign about smoking in pregnancy. Work with PSPI to leverage local, regional and state media outlets using traditional and new media approaches to reach the MCH target population, health care providers and policy makers. Collaborate with all appropriate programs within the State Health Department to incorporate smoking cessation messages into current program health messages, targeting women of child bearing age, across the lifespan.

10. Promote tobacco treatment services, including promotion of the Indiana Tobacco Quitline and access to health care providers through policy implementation and quality improvement measures. Work with OMPP and the MCOs to monitor and update the Notification of Pregnancy (NOP) form which includes assessment of smoking status, readiness to quit, and referrals made for smoking cessation, completed by Medicaid prenatal care providers at the initial prenatal visit. MCH consultant will ask OMPP to monitor use of reimbursable tobacco screening and cessation counseling codes by prenatal care providers as a QI measurement tool. Implement continuous quality improvement among the Managed Care organizations to monitor the referrals given, referral follow-up and number of women who quit.

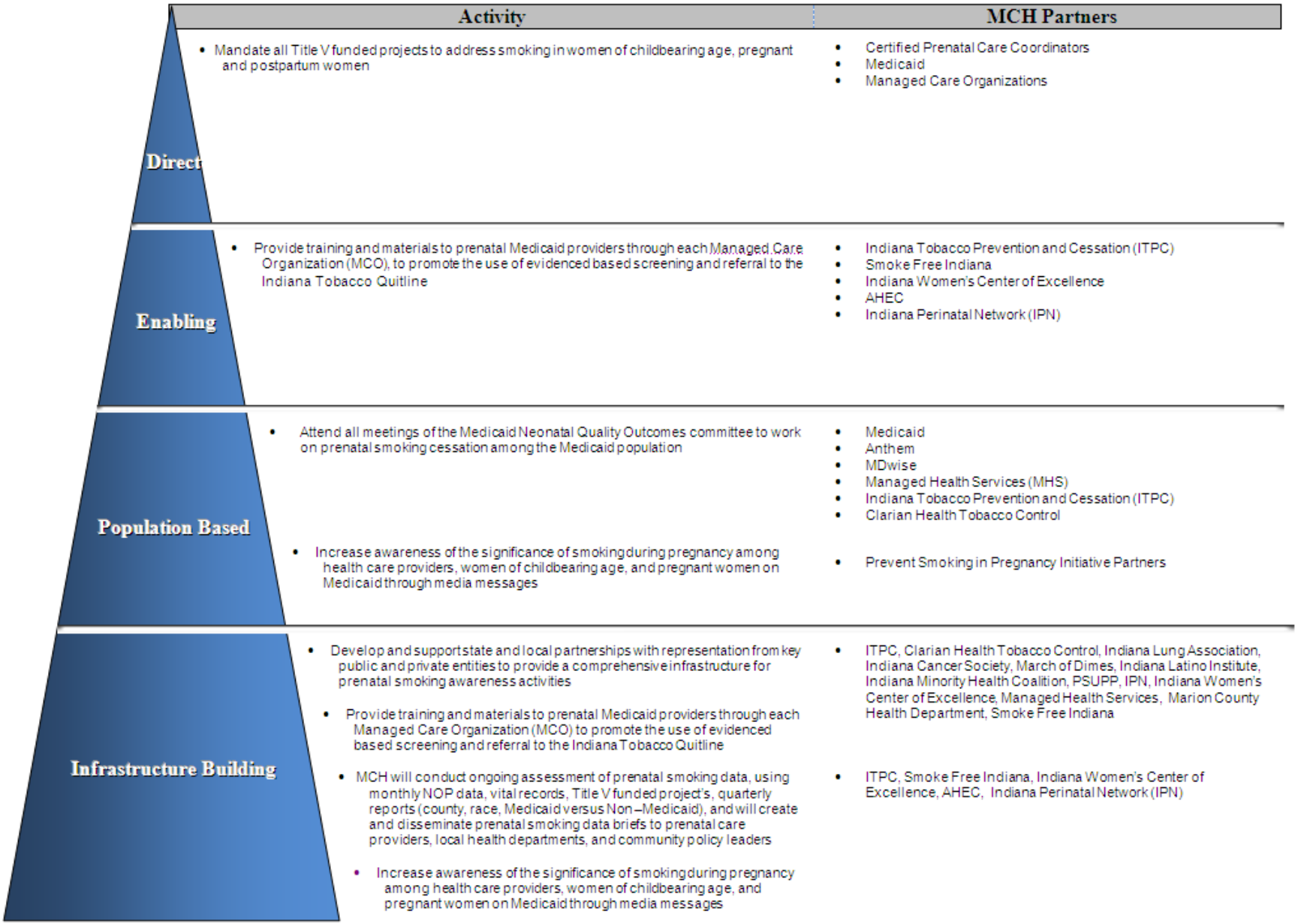
11. Mandate all Title V funded projects to address smoking in women of childbearing age, pregnant and postpartum women. Assessment of smoking status and cessation counseling referral or intervention for all women of childbearing age will continue to be mandated for all Title V funded projects.

Tracking Performance Measures

Annual Objective and Performance Data	2006	2007	2008	2009	2010
Annual Performance Objective	Baseline				
Annual Indicator		27%			
Numerator					
Denominator					
Data Source: OMPP, NOP					
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?					
	2011	2012	2013	2014	2015
Annual Performance Objective	25%	24.5%	24%	23.5%	23%

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. Develop and support state and local partnerships with representation from key public and private entities to provide a comprehensive infrastructure for prenatal smoking awareness activities.				X
2. Attend all meetings of the Medicaid Neonatal Quality Outcomes committee to work on prenatal smoking cessation among the Medicaid population.		X		
3. Provide training and materials to prenatal Medicaid providers through each MCO, to promote the use of evidenced based screening and referral to the Indiana Tobacco Quitline.		X		X
4. MCH will conduct ongoing assessment of prenatal smoking data using monthly NOP data; vital records, Title V funded project quarterly reports, by county, race, Medicaid versus Non-Medicaid, and will create and disseminate prenatal smoking data briefs to prenatal care provider, local health departments, and community policy leaders.				X
5. Increase awareness of the significance of smoking during pregnancy among health care providers, women of childbearing age, and pregnant women on Medicaid through media messages.			X	
6. Promote tobacco treatment services, including promotion of the Indiana Tobacco Quitline and access to health care providers through policy implementation and quality improvement measures.				X
7. Mandate all Title V funded projects to address smoking in women of childbearing age, pregnant and postpartum women.				X

SPM # 3 PREVALENCE OF SMOKING FOR PREGNANT WOMEN ON MEDICAID



FORM 16
STATE PERFORMANCE/OUTCOME MEASURE DETAIL SHEET

State Health Priority 4:	The percent of black women (15 through 44) with a live birth whose prenatal visits were adequate.
GOAL	To increase the percentage of black women (15 through 44) who have access to early and culturally appropriate prenatal care to address poor birth outcomes and racial disparities.
DEFINITION	Increase percentage of black women (15 through 44) who have access to early and culturally appropriate prenatal care**.** **Numerator:** The number of Black Women (15 through 44) who have access to early and culturally appropriate prenatal care to address poor birth outcomes and racial disparities during the reporting period. **Denominator:** The number of pregnant minority women (ages 15 through 44) in the state during the reporting period **Units: ___100___ (Number)** **__Percent (Text)**
HEALTHY PEOPLE 2010 OBJECTIVE	**Related to Objectives 16-6**: Increase the percentage of pregnant women who receive early and adequate prenatal care.
DATA SOURCES AND DATA ISSUES	**Source:** State Vital Statistics Systems and Epidemiology Resource Center
SIGNIFICANCE	The percentage of women in Indiana who receive Adequate/Adequate Plus Care averaged below 75%. This number is well below the goal of at least 90% of women receiving Adequate/Adequate Plus Care. In the black population, the average was below 58%.

State Health Priority 4: Percentage of black women (15 through 44) with a live birth whose prenatal visits were adequate

Performance Objective: Increase the percentage of black women (15 through 44) with a live birth during the reporting year whose prenatal visits are adequate to 58%.

Overview: The Kotelchuck Index, or Adequacy of Prenatal Care Utilization (APNCU) Index, is one method of measuring prenatal care. The Kotelchuck Index combines the month prenatal care began with the number of prenatal visits prior to delivery and compares this with the standard number of visits to create an index (percentage). There are four categories of care: Inadequate (received less than 50% of visits), intermediate (50-79%), Adequate (80-109%) and Adequate Plus (110% or more). The goal is for at least 90% of women to receive Adequate/Adequate Plus care. The APNCU of the black population decreased between 2002 and 2006 from 64.2% to 63% of women receiving Adequate/Adequate Plus Care in Indiana. (**Note**: In 2007, Indiana started using the revised birth certificate. Questions concerning prenatal care changed with this conversion making comparisons to previous data incompatible. Per the 2009

CDC National Center for Health Statistics (NCHS) notification, a decrease in percent of mothers receiving prenatal care in the first trimester was observed in every state using the revised birth certificate . Going forward, Indiana has been instructed to use 2007 as a new baseline.)

FY 10 Current Activities:

1. Three Indiana Counties have Black infant mortality rates over 30/1,000 (St. Joseph, Allen, Delaware). MCH has presented a vital record analysis and GIS mapping of birth outcomes and infants deaths in each county and is continuing to work with county coalitions and county minority coalitions to address these third world statistics.

2. The Office of Minority Health (OMPP) media campaign, "A Healthy Baby Begins with You", will continue to be implemented in the disparity counties as well as at Black Expo

3. MCH will collaborate with Minority Health Coalitions in St. Joseph, Allen, Marion, Delaware, Lake, and Vanderburgh Counties to conduct a series of community conversations in Black neighborhoods to show the unnatural causes videos, provide education and empower residents to plan neighborhood activities.

4. MCH is presently working with hospitals to show the Unnatural Causes videos and life course perspective at grand rounds. A Grand Round presentation for OB Doctors at Ball Memorial Hospital covering vital records data and the Life Course Perspective has already occurred in 2010.

5. MCH is presently collaborating with the National Healthy Mothers, Healthy Babies Coalition's free mobile information service text4baby educational program for implementation at MCH related clinics in the disparity counties and statewide. Text4baby provides free text messages three times a week with information to help mothers through their pregnancy and baby's first year.

*FY 11 Planned Activities: (*FY 2011 Performance Objective: Increase the percent of black women (15 through 44) with a live birth during the reporting year whose prenatal visits are adequate 59%.)

1. MCH will increase the number of Free Pregnancy Test Projects by 100% in counties that are lower than the state average in terms of black women entering prenatal care in the first trimester.

2. MCH will promote the National Healthy Mothers, Healthy Babies Coalition's free mobile information service Text4baby educational program for implementation at MCH related clinics in the disparity counties and statewide. Text4baby provides free text messages three times a week with information to help mothers through their pregnancy and baby's first year.

3. Using updated data, MCH will evaluate counties where adequate prenatal care percentages have either increased or decreased.

4. In high-risk counties, MCH will collaborate with the National Fatherhood Initiative to conduct two train-the-trainer workshops covering "Doctor Dad" & "When Duct Tape Won't Work" curriculums in Indianapolis for Indiana healthcare and community professionals. The curriculum will teach new and prospective fathers the basic issues of well child, sick child, safe child, and injured child care. The training is designed to help men develop the attitudes, knowledge, and skills they need to get and stay involved with pregnant mother, infants, and children.

5. In collaboration, MCH will develop and implement a Premature Birth Initiative for addressing early preterm delivery among black women.

6. The Office of Minority Health's media campaign, "A Healthy Baby Begins with You", will continue to be implemented and promoted in the disparity counties as well as at Black Expo.

7. MCH will continue to work with hospitals to show the Unnatural Causes videos and to present the life course public health perspective at grand rounds.

8. MCH will develop a partnership with the March of Dimes to market the Centering Healthcare Institute's Centering Pregnancy Model's basic and Level II Advance Facilitation Workshops. These workshops will teach the skills necessary for conducting centering group care as best practices in 10 Indiana counties that have a (1) low percentage of black women who receive adequate prenatal care, and (2) high incidents of low birth weight (LBW) births and infant mortality.

9. MCH will encourage the use of Social Networking Sites (SNS) and tools by MCH clinics for pregnant women.

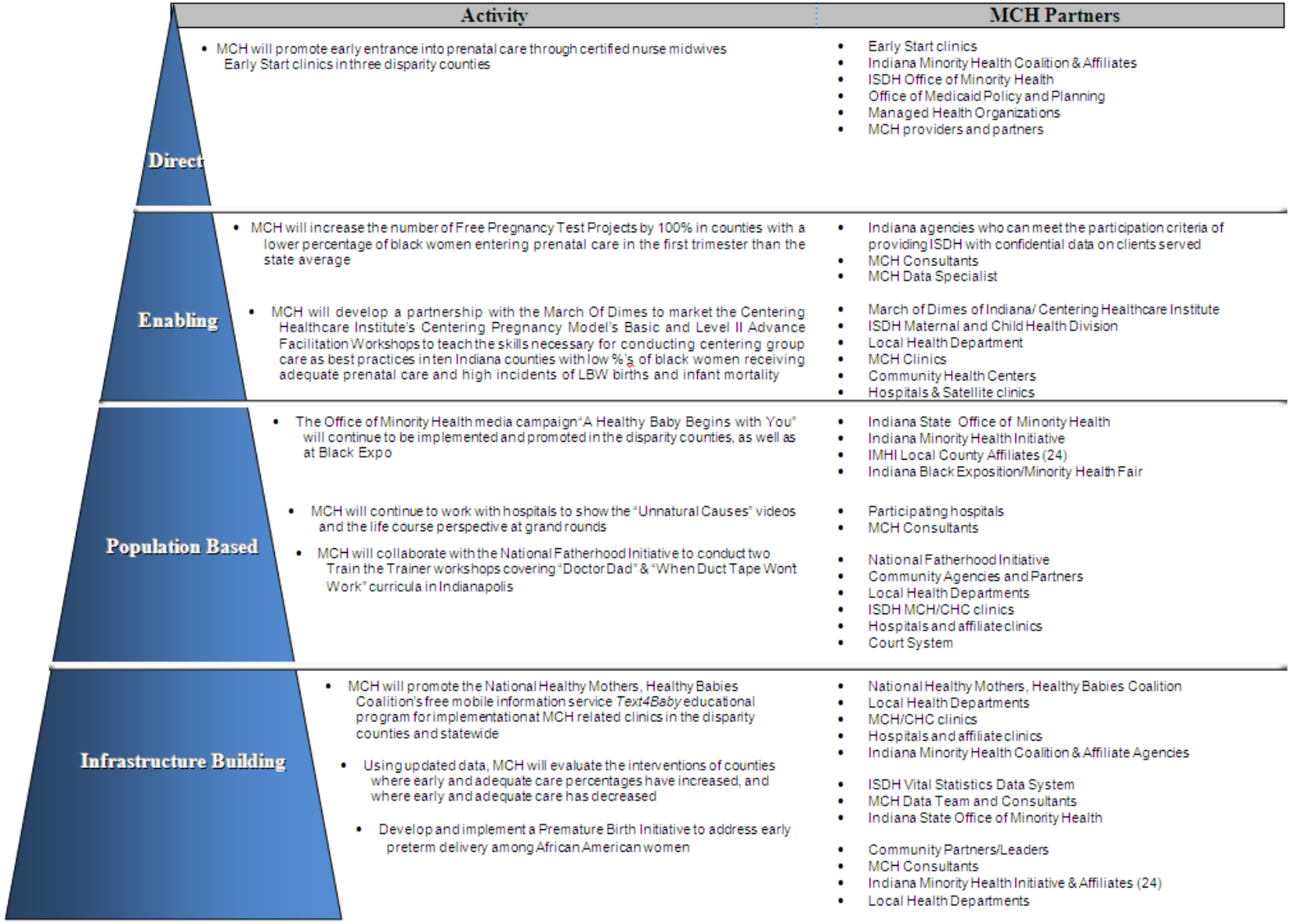
10. MCH will promote early entrance into prenatal care through certified nurse midwife Early Start clinics in three disparity counties.

Tracking Performance Measures

Annual Objective and Performance Data	2006	2007	2008	2009	2010
Annual Performance Objective				83%	88%
Annual Indicator					
Numerator					
Denominator					
Data Source					
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?	Final	Provisional			
Annual Performance Objective	2011	2012	2013	2014	2015

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
Present an analysis of birth outcomes and infants deaths in three counties with a Black infant mortality rate of 30-31/1,000 (Allen, St. Joseph, Delaware Counties)			X	
Work with county coalitions and county minority coalitions to address these third world statistics.				X
The Office of Minority Health media campaign *A Healthy Baby Begins with You* will continue to be implemented in the disparity counties as well as at Black Expo		X		
Encourage continue FIMR in ST. Joseph County.			X	
Work with hospitals to show the Unnatural Causes videos and life course perspective at grand rounds and staff meetings.		X		
Collaborate with Minority Health Coalitions in St. Joseph, Allen, Delaware Counties to conduct a series of town hall meetings in Black neighborhoods to identify perinatal system barriers.				X

SPM # 4 PERCENTAGE OF BLACK WOMEN (AGES 15 - 44) WITH A LIVE BIRTH WHOSE PRENATAL VISITS WERE ADEQUATE



FORM 16
STATE PERFORMANCE/OUTCOME MEASURE DETAIL SHEET

State Health Priority 5 **PERFORMANCE MEASURE:**	The percentage of children less than 72 months of age with blood lead levels (BLL) equal to or greater than 10 micrograms per deciliter
GOAL	Decrease the percentage of children less than 72 months of age with blood lead levels equal to or greater than 10 micrograms per deciliter
DEFINITION	Decrease percentage of children less than 72 months of age with blood lead levels equal to or greater than 10 micrograms per deciliter. **Numerator:** Number of children less than 72 months of age with blood lead levels equal to or greater than 10 micrograms per deciliter **Denominator:** Number of children less than 72 months of age tested for elevated BLL. **Units: 100 (Number) Percent (Text)**
HEALTHY PEOPLE 2020 OBJECTIVE	HP 2020-13 Eliminate elevated blood levels in children Status: Retained but modified Healthy People 2010 Objective 8-11
DATA SOURCES AND DATA ISSUES	ISDH Lead and Healthy Homes Division
SIGNIFICANCE	It is a significant state performance measure in the growth and development of young children. Lead is highly toxic, especially to young children. It can harm a child's brain, kidneys, bone marrow, and other body systems. Lead poisoning is a preventable disease.

State Health Priority 5: Percentage of children less than 72 months old with blood lead levels greater or equal to 10 micrograms per deciliter.

Performance Objective: During FY 2010 the percentage of children less than 72 months with blood lead levels equal to or greater than ten Micrograms per deciliter will be decreased to 0.80% of the total children tested. The projection for total tested is 80,000 with 640 elevated.

Overview: Lead poisoning is a silent menace which often does not manifest itself until the damage is done. The condition can permanently and irreversibly damage the developing brains and other organs of young children. Serious effects can include lowered intelligence, behavior disorder, and slowed physical development. Once poisoned, a young child's chances for academic, social and occupational success are significantly diminished. A child with one venous blood specimen ≥10 μg/dL or any combination of two capillary and/or unknown blood specimens ≥10 μg/dL drawn within 12 weeks of each other is confirmed for elevated BLL (EBLL).

Deteriorated lead-based paint in the child's home environment is the primary source of lead poisoning. Young children, who are most vulnerable to the affects of lead poisoning, pick up lead dust from the floor and ingest it through hand to mouth activity. In recent years other sources of lead poisoning have come to light. Consumer products, such as children's toys or inexpensive jewelry, often imported from countries where there are few restrictions on the use of lead, have resulted in some notorious cases of lead poisoning and even death. Still, any child living in a house built prior to 1978 is in the greatest risk of lead poisoning. The older the home the more likely there is lead paint.

The number of children under seven years old who were tested for lead increased by 13,751 (26%) in calendar year 2007. The number confirmed as lead-poisoned also increased to 656 children (13.5%). Since 2000, 336,519 children have been tested. Of those, 4,514 have been confirmed with elevated blood lead levels.

In FY 2009, 64,221 children were tested. Of the children tested, 371 were confirmed as having an elevated blood lead level equal to or greater than ten (10) micrograms per deciliter of blood. The percentage of confirmed elevated children was 0.57%. Thirty-four (34%) percent of all Medicaid eligible children in Indiana have received at least one blood lead test in their lifetime. Forty-six (46) percent of all children enrolled in a Medicaid Managed Care Organization have received at least one blood lead test before their second birthday.

This state performance measure seeks to focus effort and attention on decreasing the number of children who are exposed to lead and the dangerous and lifelong effect that poisoning may bring.

FY 10 Current Activities:

1. Indiana Lead and Healthy Homes Program (ILHHP) conducts training on the revised administrative rule 410 IAC 29: REPORTING, MONITORING, AND PREVENTIVE PROCEDURES FOR LEAD POISONING. These training sessions include regional trainings,

one-on-one training with local health department staff and the annual Indiana Lead-Safe and Healthy Homes Conference.

2. ILHHP works to improve case management of lead poisoned children by continuing the systematic training of local health department staff in the requirements of 410 IAC 29: REPORTING, MONITORING, AND PREVENTIVE PROCEDURES FOR LEAD POISONING.

3. ILHHP works with the Indiana Lead-Safe Housing Advisory Council and the Indiana General Assembly to introduce comprehensive lead legislation focusing on retaliatory evictions for contacting local health departments and issues surrounding lead hazards in rental property.

4. ILHHP works to improve monitoring of the local responsibilities under the case management rule including environmental follow-up on lead poisoned children.

5. ILHHP decreases the percent of elevated children through increased primary prevention activities including: increasing the overall number of environmental inspections and investigations, increasing the number of housing units becoming lead safe by increasing follow-up and enforcement of existing regulations, helping to increase the lead hazard remediation grants in the state, improving training and increasing the number of licensed lead professionals, improving enforcement of existing abatement regulations, and an expanded mission to include an overall healthy homes approach to environmental case management.

6. ILHHP continues efforts to affect an increase in the percent of Medicaid screened children by encouraging Medicaid reimbursement for testing, case management, and environmental inspection.

7. ILHHP improves lead program data collection and analysis including: data collections and comparisons with other programs such as Medicaid and WIC, use of the I-LEAD web application to produce consistent and effective risk assessments and environmental follow-up, development of an enhanced database of medical and case management information.

8. ILHHP increases awareness and outreach efforts including monitoring and disseminating product alerts from the Consumer Product Safety Commission bulletins and other sources of information regarding consumer product safety issues.

FY 11 Planned Activities: (During FY 2011 the percentage of children less than 72 months of age with confirmed blood lead levels equal to or greater than 10 Micrograms per deciliter will be decreased to 0.5% of the total children tested. The projection for total tested is 68,000 with 340 confirmed as having an elevated blood lead level.)

1. ILHHP will conduct training on the revised administrative rule 410 IAC 29: REPORTING, MONITORING, AND PREVENTIVE PROCEDURES FOR LEAD POISONING. These training sessions include regional trainings, one-on-one training with local health department staff and the annual Indiana Lead-Safe and Healthy Homes Conference.

2. ILHHP will work to improve case management of lead poisoned children by continuing the systematic training of local health department staff in the requirements of 410 IAC 29: REPORTING, MONITORING, AND PREVENTIVE PROCEDURES FOR LEAD POISONING.

3. ILHHP will work with the Indiana Lead-Safe Housing Advisory Council and the Indiana General Assembly to introduce comprehensive lead legislation focusing on retaliatory evictions for contacting local health departments and issues surrounding lead hazards in rental property.

4. ILHHP will work to improve monitoring of the local responsibilities under the case management rule including environmental follow-up on lead poisoned children.

5. ILHHP will decrease the percent children with of elevated blood lead levels through increased primary prevention activities including: increasing the overall number of environmental inspections and investigations, increasing the number of housing units becoming lead safe by increasing follow-up and enforcement of existing regulations, helping to increase the lead hazard remediation grants in the state, improving training and increasing the number of licensed lead professionals, improving enforcement of existing abatement regulations, and an expanded mission to include an overall healthy homes approach to environmental case management.

6. ILHHP will continue efforts to affect an increase in the percent of Medicaid screened children by encouraging Medicaid reimbursement for testing, case management, and environmental inspection.

7. ILHHP will improve lead program data collection and analysis including: data collections and comparisons with other programs such as Medicaid and WIC, use of the I-LEAD web application to produce consistent and effective risk assessments and environmental follow-up, development of an enhanced database of medical and case management information.

8. ILHHP will increase awareness and outreach efforts including monitoring and disseminating product alerts from the Consumer Product Safety Commission bulletins and other sources of information regarding consumer product safety issues.

9. ILHHP will increase the number of risk assessors in Indiana by 10 % from 247 to 272 by December 31, 2011.

10. ILHHP will increase the number of homes remediated for lead hazards by 10% from 1,243 to 1,367 by December 31, 2011.

11. ILHHP will increase the number of homes where abatement activities are conducted by 10% per 326 IAC 23 from 18 to 20 homes by December 31, 2011.

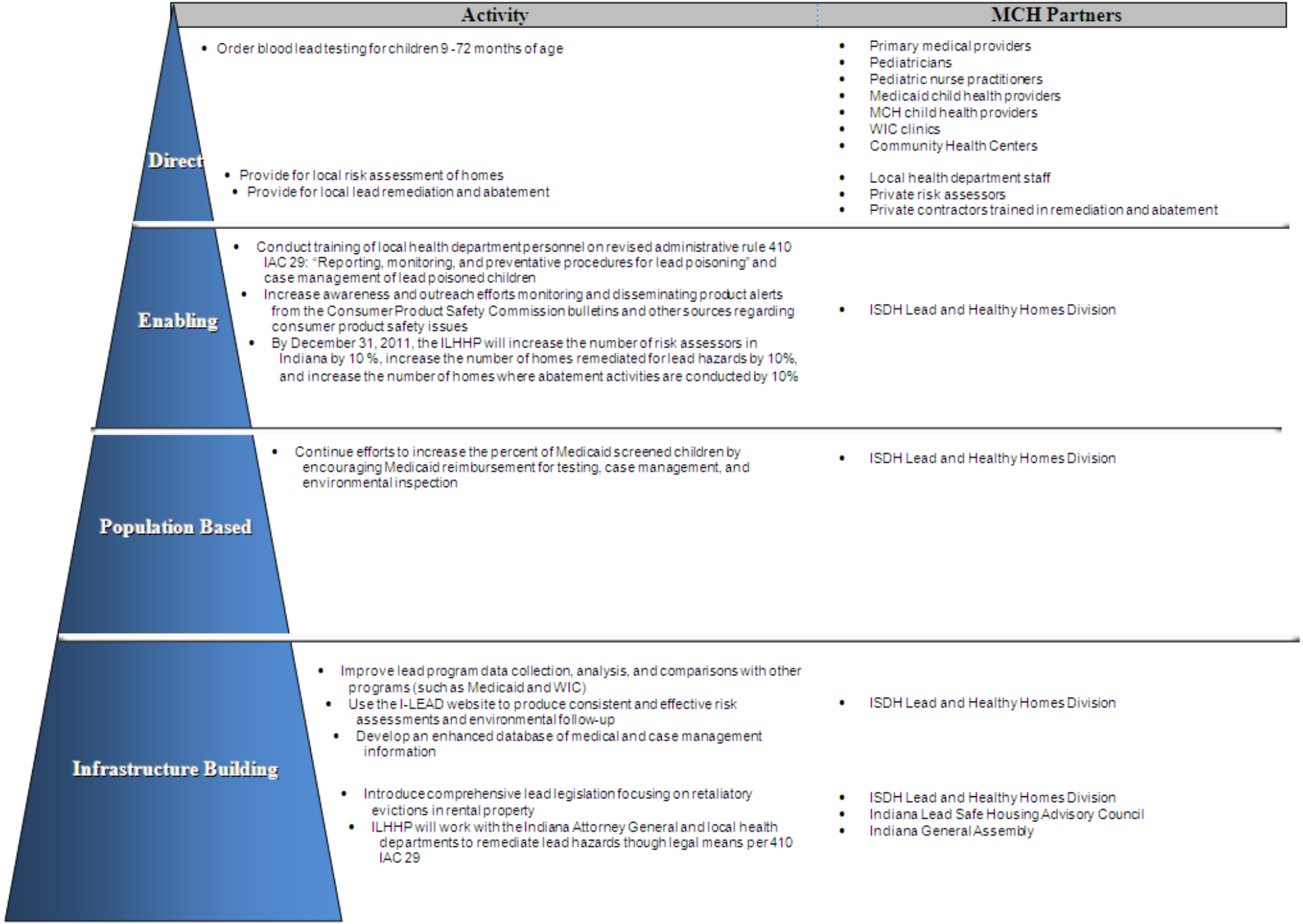
12. ILHHP will work with the Indiana Attorney General and local health departments to remediate lead hazards though legal means per 410 IAC 29. Baseline: one case has been filed.

Activities	Pyramid Level of Service			
	DHC	ES	PBS	IB
1. ILHHP conducts training on the revised administrative rule 410 IAC 29: REPORTING, MONITORING, AND PREVENTIVE PROCEDURES FOR LEAD POISONING. These training sessions include regional trainings, one-on-one training with local health department staff and the annual Indiana Lead-Safe and Healthy Homes Conference.				X
2.ILHHP works to improve case management of lead poisoned children by continuing the systematic training of local health department staff in the requirements of 410 IAC 29: REPORTING, MONITORING, AND PREVENTIVE PROCEDURES FOR LEAD POISONING.				X
3. ILHHP works to improve monitoring of the local responsibilities under the case management rule including environmental follow-up on lead poisoned children.		X		
4. ILHHP continues efforts to affect an increase in the percent of Medicaid screened children by encouraging Medicaid reimbursement for testing, case management, and environmental inspection.			X	
5. ILHHP improves lead program data collection and analysis including: data collections and comparisons with other programs such as Medicaid and WIC, use of the I-LEAD web application to produce consistent and effective risk assessments and environmental follow-up, development of an enhanced database of medical and case management information.				X
6. ILHHP increases awareness and outreach efforts including monitoring and disseminating product alerts from the Consumer Product Safety Commission bulletins and other sources of information regarding consumer product safety issues.		X		
7. ILHHP will work with the Indiana Lead-Safe Housing Advisory Council and the Indiana General Assembly to introduce comprehensive lead legislation focusing on retaliatory evictions for contacting local health departments and issues surrounding lead hazards in rental property.				X
8. ILHHP will increase the number of risk assessors in Indiana by 10 % to 272 by December 31, 2011.				X
9. ILHHP will increase the number of homes remediated for lead hazards by 10% to 1,367 by December 31, 2011.		X		
10. ILHHP will increase the number of homes where abatement activities are conducted by 10% per 326 IAC 23 to 20 homes by December 31, 2011.		X		
11. ILHHP will work with the Indiana Attorney General and local health departments to remediate lead hazards though legal means per 410 IAC 29.				X

Performance Tracking Measure

Annual Objective and Performance Data	2006	2007	2008	2009	2010
Annual Performance Objective					.080%
Annual Indicator	1.22%	0.87%	0.47%	0.57%	
Numerator	569	578	656	371	
Denominator	46,732	66,772	13,751	64,221	
Data Source): ISDHLead-Safe and Healthy Homes Division					
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final? Final					
Annual Performance Objective	2011	2012	2013	2014	2015
	0.5%				

SPM # 5 PERCENTAGE OF CHILDREN < 72 MONTHS WITH BLOOD LEAD LEVELS ≥ 10 MICROGRAMS PER DECILITER



FORM 16
STATE PERFORMANCE/OUTCOME MEASURE DETAIL SHEET

State Health Priority 6 **PERFORMANCE MEASURE:**	The percentage of births that occur within 18 months of a previous birth to the same birth mother.
GOAL	The percentage of births that occur within 18 months of a previous birth to the same birth mother will decrease from 35.4% in 2007 to 33% in 2015.
DEFINITION	Reduce percentage of births that occur within 18 months of a previous birth to the same mother. **Numerator:** Mothers with a previous birth that deliver another child within 18 month of a previous birth. **Denominator:** Total births to mothers with a previous birth. **Units: 100 Percent** **(Number) (Text)**
HEALTHY PEOPLE 2020 **OBJECTIVE**	FP HP2020-5: Reduce the percentage of pregnancies conceived within 18 months of a previous pregnancy**. (**Retained/modified HP2010 objective 9-2)
DATA SOURCES AND **DATA ISSUES**	Source: Epidemiology Resource Center (ERC) Issues: Calculations on this performance measure previously used only selected populations and singleton births as reported in "*Short Interpregnancy Intervals and the Risks of Adverse Birth Outcomes in Indiana: Statistics from the Live Birth Data 1990-2005.* ISDH, Maternal and Child Health Services." Using all mothers with a previous birth within 18 months as the numerator and total births as the denominator will change the percentages reported.
SIGNIFICANCE	"Encouraging females of all ages to space their pregnancies adequately can help lower their risk of adverse perinatal outcomes. A recent study indicates that females who wait 18 to 23 months after delivery before conceiving their next child lower their risk of adverse perinatal outcomes, including low birth weight, preterm birth, and small-for- size gestational age. Health care providers can help all new mothers understand that they can become pregnant again soon after delivery and should assist them with contraceptive education and supplies." The Healthy People 2010 Family Planning Objectives.

State Health Priority 6: Percentage of births occurring within 18 months of a previous birth to the same mother

Performance Objective: The percentage of births that occur within 18 months of a previous birth to the same birth mother will be reduced to 12% in 2009. *The latest available data is from the 2006 vital records. In 2006, 11.9% of mothers had a birth that was within 18 months of previous birth.*

Overview -- Two studies have been conducted in Indiana that provide snapshots of the major population centers. The Indiana State Department of Health (ISDH) conducted a Mini PRAMS Survey in Marion, Lake and St. Joseph Counties in 2002 and the Indiana Access findings in Marion County in 2005. Thirty three percent (33%) of the Mini PRAMS respondents indicated that they wanted to be pregnant now and over 50% reported they wanted to be pregnant later or not at all. Nearly two-thirds of women from Lake County indicated they wanted to be pregnant later or not at all. Black women were nearly three times more likely than white women to indicate that they did not want to be pregnant then or anytime in the future.
The Indiana Access survey of 530 women who delivered babies at either Methodist or Wishard Hospitals in Indianapolis between July 2003 and February 2004 found that 83% of Black women had an unintended pregnancies compared to 74% of white women and 43% of Hispanic women.

According to the ISDH report ***Short Interpregnancy Intervals and the Risks of Adverse Birth Outcomes in Indiana: Statistics from the Live Birth Data 1990-2005***, 44.5% of all pregnancies were conceived within 24 months of the last pregnancy, 18.8% were conceived within less than 12 months, and 6.2% in less than 6 months. Teen multiparous mothers had a higher prevalence of very short interpregnancy interval (< 6 months) of 21.5% among whites, 21.7% among blacks and 27% among Hispanics. The prevalence of short interpregnancy interval in Indiana declined only modestly since the early 1990's. Between the two periods of 1990-1993 and 2002-2005, the percentage of births following a short interpregnancy interval of less than 12 months declined by 14 percent, from 21.1 to 18.3 percent. Controlling for the potential confounding variables, short interpregnancy interval was associated with significantly higher risks of low birth weight, preterm, and small-for gestational age births. The negative impact of short interpregnancy interval was stronger on very low birth weight and very preterm births (compared to moderately low birth weight, moderately preterm, or late preterm births) and continued to be statistically significant even at interpregnancy interval of 6-12 month.

FY 10 Current Activities:

1. Indiana Perinatal Network (IPN) will work with state stakeholders to implement two (2) of the recommendations in the State Perinatal Advisory Board consensus document, "Best Intentions: Unplanned Pregnancy". IPN is working closely with Medicaid on the Family Planning Waiver.

2. Continue to work with the ISDH Office of Women's Health, the Indiana Office of Medicaid Policy and Planning (OMPP), IPN and the Indianapolis Women's Center of Excellence to develop an "Every Woman Every Time" movement with provider trainings, consumer media and marketing

3. MCSHC and the State Perinatal Advisory Board and others will explore the best way to operationalize the concept of interconception care for health care providers and will implement at least one strategy (vitamins for the whole family- all family members take a Flintstone vitamin

together – to promote healthy families and folic acid for women., Rx pads for physicians to give all to women of childbearing age in their practice with "Every Woman Every Time" messages.)

4. MCH will work with Title X to implement media campaign. MCSHC will continue to work with disparity counties to implement *A Healthy Baby Begins with You* campaign and messages about healthy interpregnancy intervals.

FY 11 Planned Activities: (FY 2011 Performance Objective: The proportion of births that occur within 18 months of a previous birth to the same birth mother will be reduced to 10% in 2011. MCH is changing the main focus of this objective to include both preconception and Interconception activities.)

1. Develop a state Family Planning work group in collaboration with the Indiana Family Health Council Title X program to assist MCH in development of statewide preconception and Interconception program. Members of the work group will include Title X, Planned Parenthood, Office of Medicaid Policy and Planning (OMPP), Title XX, IPN, Indiana University School of Medicine (IUSOM), Women's Center of Excellence, Managed Care Organizations (MCOs), ISDH Offices of Women's Health, Minority Health, Nutrition and Physical Activity, HIV, STIs, Adult Immunization, INCASA, health care professionals from state and local agencies. The work group will be charged to:

- Conduct training updates on preconception best practice models and new family planning methods with Title V funded projects.
- Collect and evaluate best practice models for improving birth spacing and decreasing unintended pregnancies.
- Consolidate and disseminate existing health care professional guidelines to include, recommended guides for preconception / interconception screenings, interventions, and health promotion.
- Develop a state plan for implementation of best practices by 2015.
- Monitor status of Medicaid Family Planning Waiver and work with state partners and FP work group to develop social marketing plan for Family Planning Waiver implementation.

2. Increase health provider awareness (primary care providers, pediatricians, OB/GYN, family planning, regarding the importance of addressing preconception health among all women of childbearing age in their practice, through state summits, guidelines, and tools yearly.

- Conduct a statewide summit for health care providers on integrating preconception and interconception health care within medical practices by 9/30/2011.
- Develop and disseminate practical screening tools for public health and primary care settings with emphasis on the 10 areas for preconception risk assessment.
- Begin development and implementation of curricula on preconception care for use in clinical education at graduate, postgraduate and continuing education levels.

3. Improve the knowledge of men and women of child bearing age related to preconception health and personal responsibility through media messages.

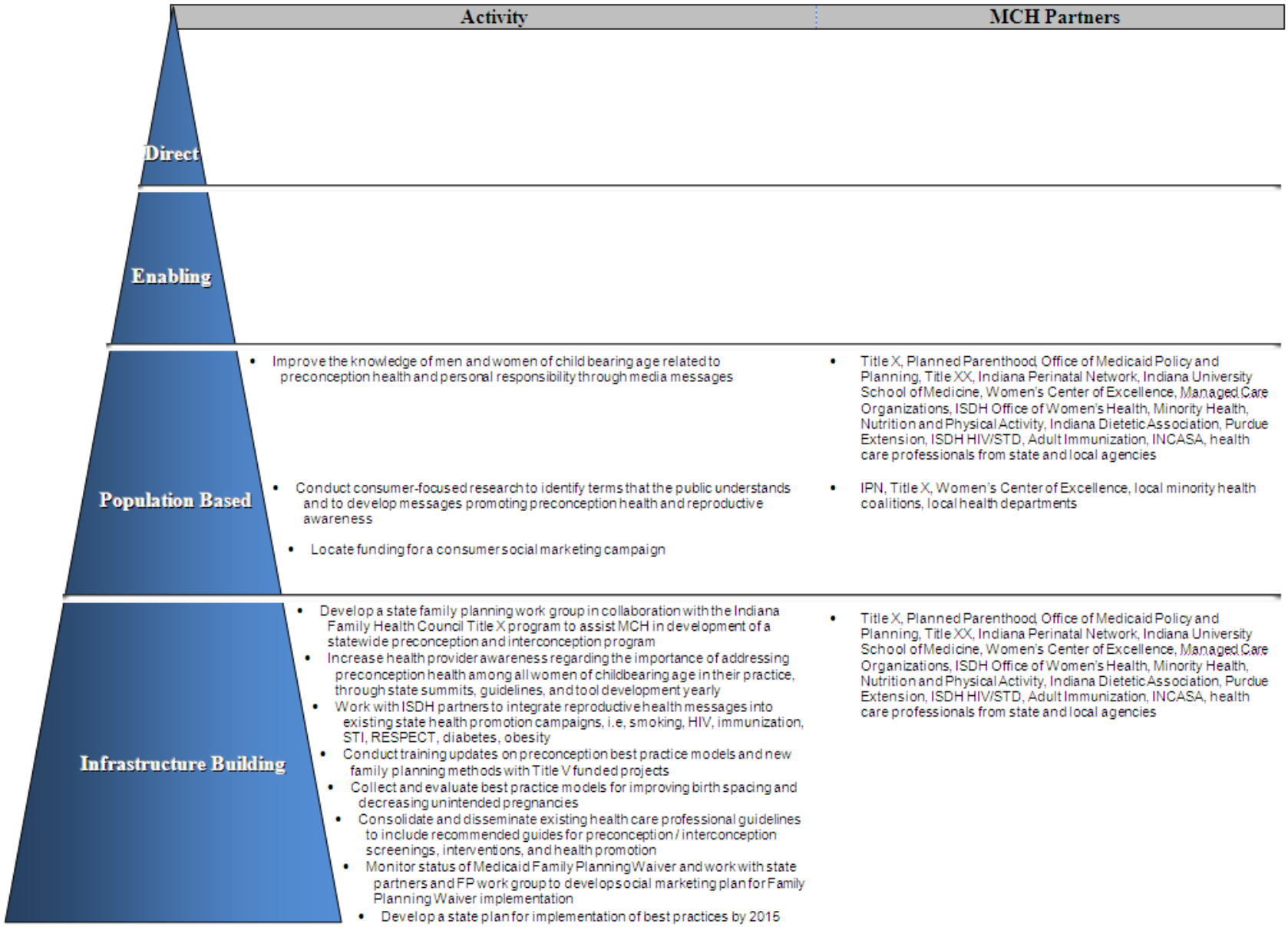
- Work with ISDH partners to Integrate reproductive health messages into existing state health promotion campaigns, i.e, smoking, HIV, immunization, STI, respect, diabetes, obesity.
- Conduct consumer-focused research to identify terms that the public understands and to develop messages promoting preconception health and reproductive awareness.
- Look for funding for a consumer social marketing campaign

Tracking Performance Measures

Annual Objective and Performance Data	2006	2007	2008	2009	2010
Annual Performance Objective				14%	35%
Annual Indicator				35%	
Numerator					
Denominator					
Data Source					
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?	Final	Provisional			
	2011	2012	2013	2014	2015
Annual Performance Objective	35	34.5	34	33.5	33

Activities	**Pyramid Level of Service**			
	DHC	**ES**	**PBS**	**IB**
1. IPN will work with state stakeholders to implement two (2) of the recommendations in the State Perinatal Advisory Board consensus document, "Best Intentions: Unplanned Pregnancy.		X		
2. Continue to work with the ISDH Office of Women's Health, the Indiana Office of Medicaid Policy and Planning, Indiana Perinatal Network and the Indianapolis Women's Center of Excellence to develop an "Every Woman Every Time" movement with provider trainings, consumer media and marketing.				X
3. MCH and the State Perinatal Advisory Board will explore the best way to operationalize the concept of interconception care for health care providers and implement at least one strategy to promote "Every Woman Every Time messages.		X		
4. MCH will continue to work with disparity counties to implement *A Healthy Baby Begins with You* campaign and messages about healthy interpregnancy intervals..			X	

SPM # 6 RATE OF BIRTHS OCCURRING WITHIN 18 MONTHS OF A PREVIOUS BIRTH TO THE SAME MOTHER



FORM 16
STATE PERFORMANCE/OUTCOME MEASURE DETAIL SHEET

State Health Priority 7	The percentage of preterm births.
GOAL	a. Decrease Total Preterm Birth rates by 15% by 2015 from 12.7 in 2007 to 10.8 by 2015. b. Decrease late preterm births due to inductions and cesareans with no medical reason by 50% by from 10.2% in 2006 to 5.1% in 2012
DEFINITION	Decrease total preterm birth rates. **Numerator:** a. all live births prior to 37 wks gestation b. late preterm births 34-36 wks gestation **Denominator:** a. all live births b. all preterm births Units: _____100____ Percent (Number) (Text)
HEALTHY PEOPLE 2020 OBJECTIVE	**MICH HP2020–8:** Reduce preterm births. a. Total preterm births b. Live births at 32 to 36 weeks of gestation c. Live births at less than 32 weeks of gestation (Retained/modified from HP2010) **MICH HP2020–6:** Reduce cesarean births among low-risk (full-term, singleton, vertex presentation) women. a. Women giving birth for the first time b. Prior cesarean birth (Retained Healthy People 2010 objective 16-9)
DATA SOURCES AND DATA ISSUES	**Source**: Vital Records, National Vital Statistics System, CDC, NCHS. **Issues:** 1) There are some serious errors on the new Indiana electronic birth certificate that need to be cleaned up. 2) Will need to explore other sources of data such as the Indiana Hospital Association discharge data.
SIGNIFICANCE	Preterm birth is a serious health crisis that costs the United States more than $26 billion annually. Preterm birth (births at less than 37 completed weeks of gestation) is a key risk factor for infant death. Babies born preterm often face the risk of serious and sometimes lifelong health problems. Babies born just a few weeks too soon (34-36 weeks gestation, also known as late preterm birth) have higher rates of death and disability than full-term babies. March Of Dimes Premature Birth Report Card released November 17, 2009, showed Indiana is one of only seven states that got a better grade on the second annual March of Dimes report card. Indiana's preterm rate went from 13.1, an F, to 12.9, a D. The rate of late preterm births is 9.3 percent; the rate of women smoking is 29 percent, and the rate of uninsured women is 17.2 percent. Early preterm births have remained fairly consistent over time with a slight increase among both 32-33 weeks and < 32 weeks gestation.

State Health Priority 7: Percentage of preterm births.

Performance Objective: A. Decrease Total Preterm Birth rates by 15% by 2015 from 12.9% in 2007 to 10.9% by 2015. B. Decrease late preterm births due to cesarean delivery with no medical reason among Indiana resident births by 50% from 10.2% in 2006 to 5.1% of all preterm births by 2012.

Overview -- In 2009, the March of Dimes (MOD) announced that Indiana had a failing grade due to a number of perinatal indicators including late preterm births. The consistent escalation of our preterm rate has created major concerns in the public health community and prompted an MCH investigation into the patterns of preterm births and the potential contributing factors. In September, 2009 MCH released results for the study **Trends in Preterm Birth, Cesarean Delivery, and Induction of Labor in Indiana:** Statistics from the Live Birth Data, 1990-2006. The purpose of this report was to study the patterns and trends in rates of preterm births, cesarean delivery, and induction of labor in Indiana between 1990 and 2006 and to explore the relationship of rising preterm rates with cesarean delivery and induction of labor.

Over the last two decades, there has been a marked shift in the gestational age distribution of Indiana live births towards earlier ages between 1990 and 2006. During this period, very preterm (less than 32 weeks) and moderately preterm (32-33 weeks) births have increased modestly (by 16 and 15 percents, respectively) whereas late preterm (34-36 weeks) and near term (37-38 weeks) births have risen sharply (by 38 and 63 percents, respectively). In contrast, births at 40 weeks or more have noticeably declined.

Cesarean delivery accounted for 29.3% of all births in 2006, up by 48% since the lowest rate of 19.8% in 1997. The upward trend in cesarean rates between 1997 and 2006 was evident across all gestational ages with the largest increases for late preterm and near term births. Primary cesarean rates in Indiana doubled (1997-2006) even for singleton full term vertex position births to women with no indicated medical risk factors (birth weight <4000g, no concurrent illness, no complications of labor and delivery).

Rate of induction of labor almost tripled in Indiana from 9.3% in 1990 to 26.9 in 2006, surpassing the national rates after mid 1990's. The upward trend in induction rates was sharper for term and late preterm births compared to very and moderately preterm and post-term.

It appears our rise in late preterm births due to increased cesareans and inductions is something we can impact with provider education, standardization of care, and policy development.

FY 10 Current Activities:

1. MCH published the report "Trends in Preterm Birth, Cesarean Delivery, and Induction of Labor in Indiana", in September 2009. The purpose of this report is to study the patterns and trends in rates of preterm births, cesarean delivery, and induction of labor in Indiana between 1990 and 2006 and to explore the relationship of rising preterm rates with cesarean delivery and induction of labor.

2. As a result of the findings, MCH partnered with March of Dimes (MOD) and the Indiana Perinatal Network (IPN) to begin development of a Preterm Birth Initiative to address late preterm births. An executive workgroup made up of 35 state and professional agency executives. The executive workgroup met 9/25/2009. Their recommendations were then broken down into four categories: 1) Data gaps, timeliness, accuracy, expanded assessment, data systems; 2) Provider education; 3) Consumer education; and 4) Policy, standards, quality improvement.

3. A state summit was held November 21, 2009 to explore drivers of change and best practices from other states. The summit "Late Preterm Birth: Where We Are and Where We Are Going", included presentations from

- Dr. Judith Ganser, ISDH, -"Trends in Preterm Birth, Cesarean Delivery, and Induction of Labor in Indiana";
- Dr. Caroline Doebbeling, Indiana - OMPP birth Record and Outcome Data;
- Dr. Eric Reynolds, Kentucky –"The 36 week Preemie: an Overview of the Late Preterm Infant.
- Dr. Chris Lang, Ohio –Quality Improvement from Ohio Perinatal Quality Collaborative.
- Ms. Celeste Milton – Joint Commission's New Measures on Cesarean Sections and Inductions.

4. After the November summit, a logic model was developed based on all recommendations and best practices with the goal to A. Decrease Total Preterm Birth Rates by 15% by 2015, and B. Decrease late preterm births due to cesareans with no medical reason by 60% in 2012.

5. The executive workgroup was called back together in early May, 2010 to review previous Executive Group recommendations; ISDH five year vision of decreased late and early preterm births; how we can reach our vision; proposed logic model; and begin development of actions to implement recommendations. The following committees were initiated: Policy, data, provider education, consumer education, reports and evaluation.

6. See SPM #3 and National Performance Measure #15 for details on addressing smoking in pregnancy, a contributing cause of preterm delivery.

FY 11 Planned Activities:

1. MCH in partnership with MOD, IPN, the Indiana Breastfeeding Alliance (IBFA) and the Indiana Women's Center of Excellence will invite two executive/managers from each of the delivering hospitals to a summit to discuss JCAHO's new prenatal care core measures set that includes: elective delivery, cesarean section, antenatal steroids, health care-associated bloodstream infections in newborns, and exclusive breast milk feeding. The morning session will include information on new JCAHO measures, the preterm birth collaborative, and hospital breastfeeding report cards.

2. Complete a perinatal state plan to guide state and local interventions that will reduce preterm births at all levels by creating policy that leads to system change, change in provider practice, and change in patient knowledge and practice.

3. Bring together additional partners to form the Indiana preterm Birth Quality Improvement Collaborative.

4. Create and maintain committees to work on Preterm Birth Executive Group recommendations of 1) provider education, 2) public and consumer education, 3) identification of data sources, and evaluation of interventions, 4) creation of policy, standards, tools to drive system change and improve birth outcomes.

5. Increase the awareness and knowledge of prenatal health care providers on the effects of prematurity due to scheduled induction and cesarean on the mother and newborn through various educational methods.

6. Begin development of standards and tools to facilitate practice change at the hospital level.

7. Develop data gathering tools to improve data collection and analysis to inform program and policy decisions, identify needs and strategies, evaluate strategies and monitor progress in reducing prematurity and neonatal mortality and morbidity.

8. Increase public awareness of all aspects of prematurity, including causes of early and late preterm delivery, induction and/or cesarean delivery with no medical reason, brain development of the fetus, the long term effects of prematurity on the newborn, through development of media messages that are culturally appropriate, literacy appropriate and are targeted to state and local audiences.

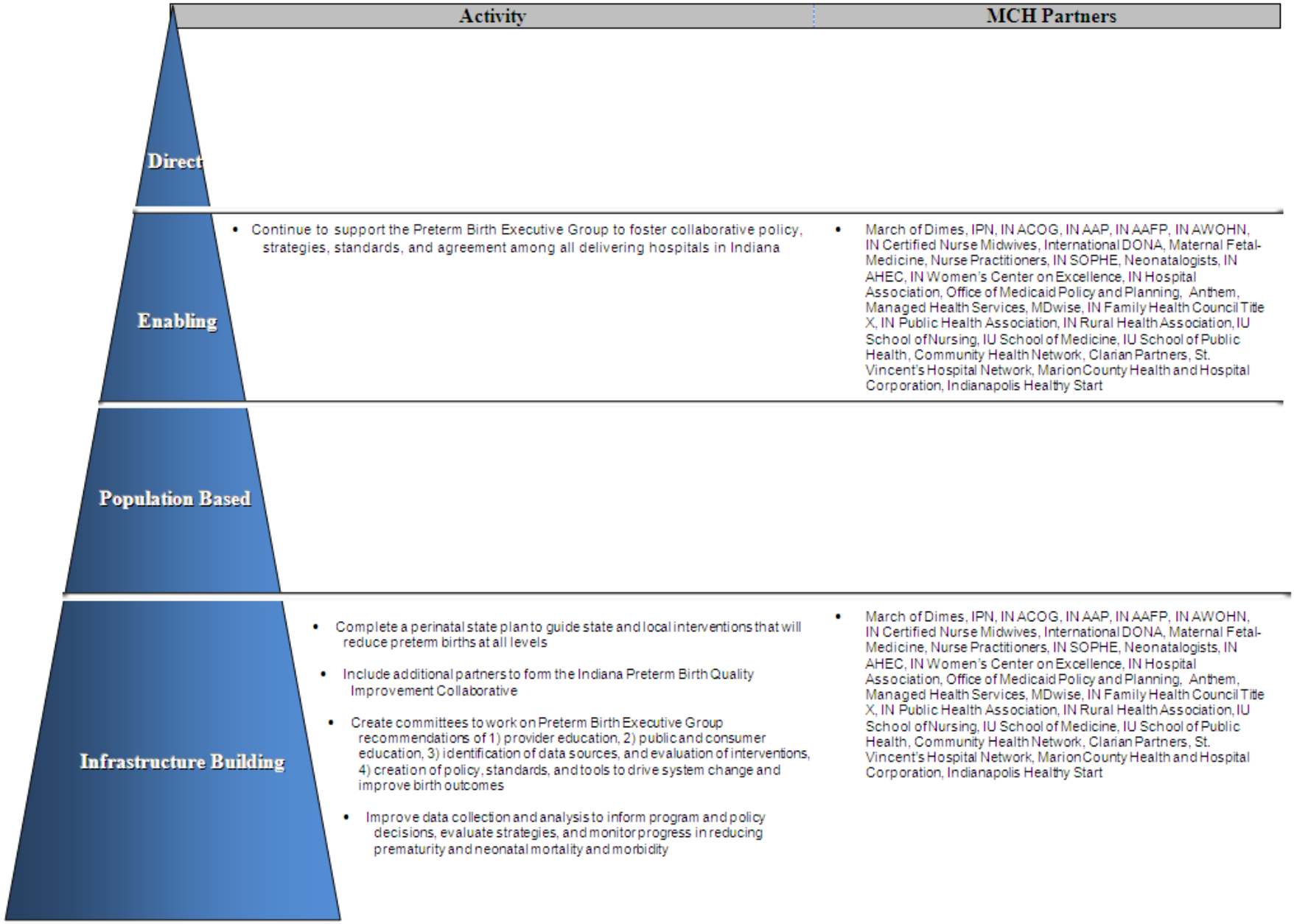
9. See State PM #3 and National PM #15 for activities to address smoking in pregnancy as a cause of preterm births.

Tracking Performance Measures

Annual Objective and Performance Data	2006	2007	2008	2009	2010
Annual Performance Objective					
Annual Indicator	13.2	12.9			
Numerator	11,801				
Denominator	89,404				
Data Source	MOD	NCHS			
Check this box if you cannot report the numerator					
Is the Data Provisional or Final?	Final	Provisional			
	2011	2012	2013	2014	2015
Annual Performance Objective a. Total Preterm Birth Rate b. Late preterm births due to cesareans with no medical reason.	a. 12.5 b. 10.2	a. 12.1 b. 5.1%	a. 11.7 b.	a. 11.3 b.	a. 10.9 b.

Activities	**Pyramid Level of Service**			
	DHC	**ES**	**PBS**	**IB**
1. Complete a perinatal state plan to guide state and local interventions that will reduce preterm births at all levels.				X
2. Bring together additional partners to form the Indiana preterm Birth Quality Improvement Collaborative.				X
3. Create committees to work on Preterm Birth Executive Group recommendations of 1) provider education, 2) public and consumer education, 3) identification of data sources, and evaluation of interventions, 4) creation of policy, standards, tools to drive system change and improve birth outcomes.				X
4. Increase the awareness and knowledge of prenatal health care providers on the effects of prematurity due to scheduled induction and cesarean on the mother and newborn through various educational methods.		X		
5. Begin development of standards and tools to facilitate practice change at the hospital level.				X
6. Improve data collection and analysis to inform program and policy decisions, identify needs and strategies, evaluate strategies and monitor progress in reducing prematurity and neonatal mortality and morbidity.				X
7. Increase public awareness of all aspects of prematurity, including causes of early and late preterm delivery, induction and/or cesarean delivery with no medical reason, brain development of the fetus, the long term effects of prematurity on the newborn, through development of media messages that are culturally appropriate, literacy appropriate and are targeted to state and local audiences.			X	
8. Begin to create policy that leads to system change, change in provider practice, change in patient knowledge and practice.				X
9. See State PM #3 and National PM #15 for activities to address smoking in pregnancy as a cause of preterm births.				X

SPM # 7 PERCENTAGE OF PRETERM BIRTHS



FORM 16
STATE PERFORMANCE/OUTCOME MEASURE DETAIL SHEET

State Health Priority 8	The percentage of high school students who are obese.
GOAL	Decrease the percentage of high school students who are obese by 3% (from 12.8 to 11.3) over 5 years..
DEFINITION	Decrease percentage of high school students who are obese. **Numerator:** Number of students with obese BMI **Denominator:** Number of students having BMI assessed **Units: ___100_____** Percent **(Number) (Text)**
HEALTHY PEOPLE 2010 OBJECTIVE	**HP2020:** Reduce the proportion of children and adolescents who are overweight and obese. (Retained/modified from HP2010) **HP2020**: Prevent inappropriate weight gain in youth and adults (New to HP2020)
DATA SOURCES AND DATA ISSUES	**Source**: YRBS **Issues:** YRBS data only collected every other year; will try to collect MCH quarterly clinic data
SIGNIFICANCE	- Overweight & obesity have significant impact on physical & psychological health - Increasing levels of overweight/obese - Obesity as an adolescent increases risk of obesity as an adult

State Health Priority 8: Percentage of high school students who are obese.

Performance Objective: Decrease the percent of high school students who are obese by 3% (from 12.8 to 11.3) over 5 years.

Overview: The overall goal outlined in Healthy People 2010 is to decrease the proportion of overweight 9th through 12th graders from 11 to 5 percent. The 2009 YRBS report for Indiana indicated that 12.8% of youth reported they are obese (at or above the 95th percentile for their age, sex and BMI). Although this figure has declined from 15% in 2005, it is still above the HP 2010 goal. In youth, obesity has been linked to high blood pressure, type 2 diabetes and high cholesterol. Obesity can also lead to coronary heart disease later in life. (Note that body mass index (BMI) data are computed from self-reported weight and height information.)

FY 10 Current Activities:

1. The Indiana Healthy Weight Initiative (IHWI) Task Force and Division of Nutrition and Physical Activity (DNPA) have continued development work on a state obesity prevention plan that addresses issues related to childcare, school settings, and special populations. By the end of August 2010, the IHWI Task Force and the DNPA will complete, publish, and disseminate a state plan for obesity prevention.

2. In addition to the completion of the state plan in August 2010, the IHWI and the DNPA will complete related implementation, evaluation and marketing plans.

3. In addition to the completion of the state plan in August 2010, the IHWI and the DNPA will complete related implementation, evaluation and marketing plans.

4. DNPA, MCH and IHWI are investigating strategies for using the MCH adolescent clinics as a pilot setting for the obesity prevention interventions.

FY 11 Planned Activities:

1. MCH will work with clinics providing Child Health and School-Based Adolescent services to screen clients in grades 9 through 12 for BMI and provide appropriate education, intervention and/or referral based on BMI status.

2. MCH will provide training/information in BMI screening and appropriate levels of nutrition intervention/education to clinics providing services for adolescents.

3. MCH will promote the concept of "personal responsibility" in achieving/maintaining a healthy weight and/or BMI status by providing personalized discussion of BMI, appropriate education/intervention and social-networking, where available and appropriate.

4. MCH will promote family/parental involvement in achieving/maintaining a healthy weight and/or BMI status by providing information on- and encouraging participation in family-centered activities. (Example: family meals)

5. MCH will work with the DNPA and the IHWI on strategies for obesity prevention intervention in adolescents and disseminating educational messages.

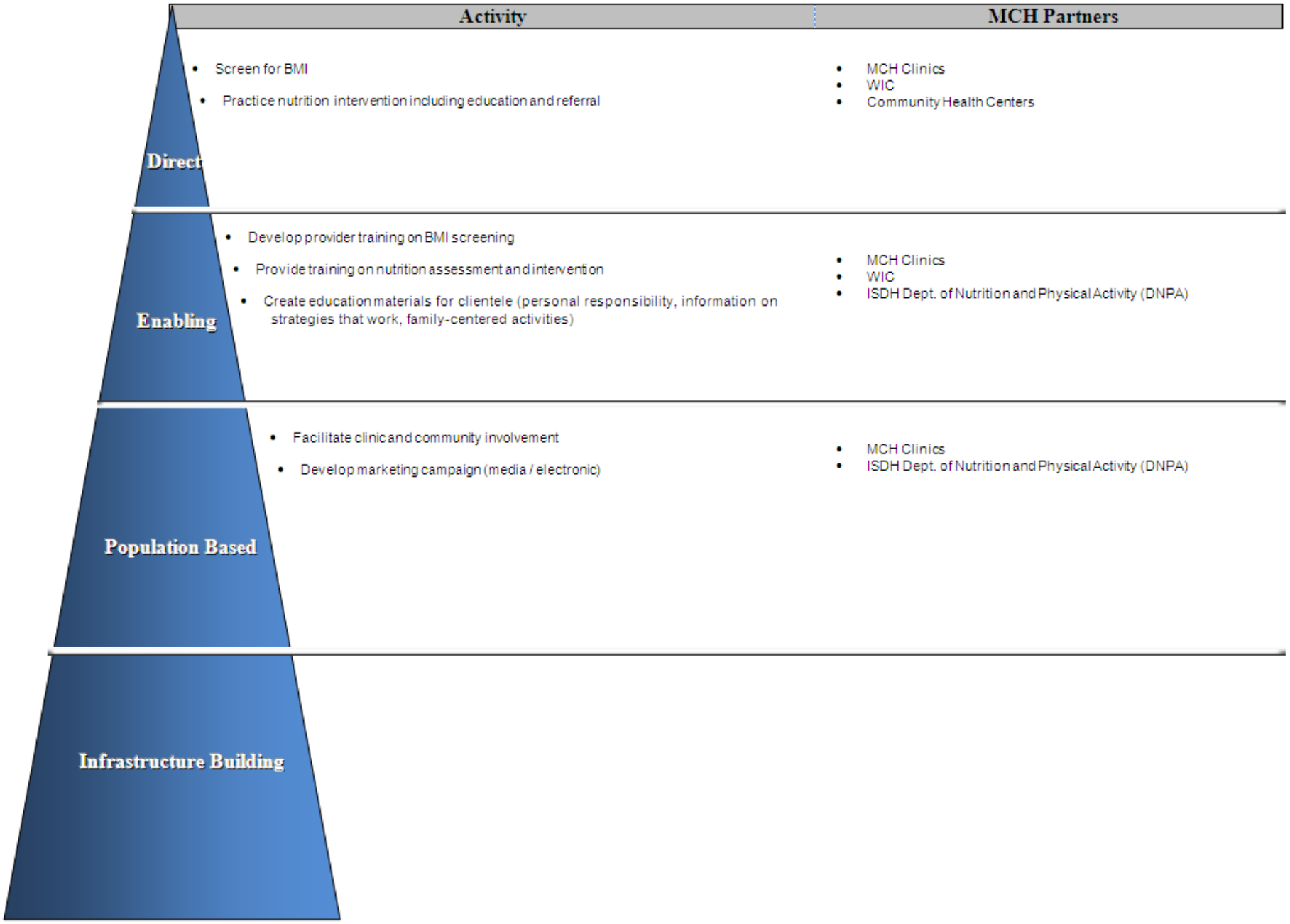
Tracking Performance Measure

Annual Objective and Performance Data	2006	2007	2008	2009	2010
Annual Performance Objective					12.8
Annual Indicator					
Numerator					
Denominator					
Data Source					YRBS
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?					
	12.8	12.3	12.0	11.6	11.3
Annual Performance Objective	2011	2012	2013	2014	2015

Notes – 2010
Performance measure changed from "The percentage of high school students who are overweight or at risk" to "Decrease the percentage of high school student who are obese."

Activities	**Pyramid Level of Service**			
	DHC	**ES**	**PBS**	**IB**
1. Indiana Healthy Weight Initiative and the DNPA is completing development of a state plan for obesity prevention that addresses issues related to childcare, school settings, and special populations.				X
2. Indiana Healthy Weight Initiative and DNPA will publish and disseminate a state plan for obesity prevention by the end of June 2010.				X
3. Indiana Healthy Weight Initiative and DNPA will also complete implementation, evaluation, and marketing plans related to the obesity prevention plan			X	
4. DNPA and MCH are collaborating in the sampling of schools and collection of data in the administration of the YRBS. The divisions of ISDH are working together to disseminate the data.				X
5. DNPA, MCS and the Indiana Healthy Weight Initiative Task Force are investigating strategies for using MCH adolescent clinics as a pilot setting for obesity prevention interventions.		X		

SPM # 8 DECREASE THE NUMBER OF HIGH SCHOOL STUDENTS WHO ARE OBESE



FORM 16
STATE PERFORMANCE/OUTCOME MEASURE DETAIL SHEET

State Health Priority 9:	Percentage of high school students who become infected with STI
GOAL	Reduce the prevalence of Chlamydia and gonorrhea among adolescents ages 15-19 from 13.6% to 12% and 4% to 2.5% respectively.
DEFINITION	Reduce percentage of high school students who become infected with sexually transmitted infections. Chlamydia: **Numerator**= number or adolescents ages 15-19 infected with Chlamydia **Denominator**= number of adolescents ages 15-19 Units= 100 Text= Percent Gonorrhea: **Numerato**r= number or adolescents ages 15-19 infected with gonorrhea **Denominator**= number of adolescents ages 15-19 Units= 100 Text= Percent
HEALTHY PEOPLE 2010 OBJECTIVE	STD HP 2020-3 STD HP 2020-4 STD HP 2020-8 STD HP 2020-9 HP2010 25-11
DATA SOURCES AND DATA ISSUES	ICIAH State Plan HCET Infertility Project IFHC Database ISDH STD Morbidity Report 21 Critical Health Objectives for Adolescents and Young Adults (CDC) YRBS Sexual Behavior Questions (CDC)
SIGNIFICANCE	Prevalence of STIs continues to increase among the adolescent population of ages 15-24.

State Health Priority 9: Percentage of high school students who become infected with sexually transmitted infections (STIs).

Performance Objective: Reduce the prevalence of Chlamydia and gonorrhea among adolescents ages 15-19 from 13.6% to 12% and 4% to 2.5% respectively.

An increase in sexual activity among adolescents and young people in Indiana and the United States has lead to an alarming number of teen pregnancies and an increase in the rates of STIs. The 2009 Youth Risk Behavior Survey (YRBS) data for Indiana reveal that 49.2% of students have ever had sexual intercourse; 36.7% have had sexual intercourse with one or more people during the past three months; and among students who have had sexual intercourse during the past three months, 58% used a condom during last sexual intercourse and 23.2% used birth control pills to prevent pregnancy. According to the Centers for Disease Control and Prevention (CDC), substantial progress has been made in preventing, diagnosing, and treating certain STIs

in recent years, but there are still an estimated 19 million new infections occurring each year. STIs disproportionately affect adolescents and young adults, with one quarter of STIs diagnosed among 15-19 year-olds and two-thirds of cases occurring among 15-24 year-olds.

FY 10 Current Activities:

1. ISDH is partnering with the Indiana Family Health Council and its delegate agencies which provide family planning services to women and men throughout the state to promote screening for Chlamydia and gonorrhea among adolescent patients.

2. MCH and the HIV/STD Division provide accurate, timely data on the prevalence of Chlamydia, gonorrhea, and other STIs to grantees and community members and via reports on the ISDH Web site.

3. MCH is partnering with Health Care Education and Training (HCET), a regional training center with experience in the fields of family planning, reproductive health, STIs, and adolescent sexual risk behavior prevention, to pilot a text messaging campaign aimed at adolescents to promote screening for STIs.

4. MCH is sponsoring a two day conference in conjunction with HCET to focus on the facts about STI rates among adolescents in Indiana as well as how to implement evidence-based programs.

5. MCH, with assistance from HCET, is mailing educational materials and resources on pregnancy prevention and STI prevention to all middle and high schools in the counties with the highest rates of teen pregnancy and STIs.

6. Through a mini-grant funding opportunity, the Indiana Coalition to Improve Adolescent Health (ICIAH), facilitated by MCH, hopes to fund projects throughout the state to implement recommendations found in the state adolescent health plan around STI prevention.

7. ICIAH provides resources on its Web site for parents, adolescents and professional regarding the prevention of STIs.

FY 11 Planned Activities:

1. ISDH will continue to partner with the Indiana Family Health Council and its delegate agencies to promote screening for Chlamydia and gonorrhea among adolescents.

2. MCH and the HIV/STD Division will provide accurate, timely data on the prevalence of Chlamydia, gonorrhea, and other STIs to grantees and community members and via reports on the ISDH Web site.

3. MCH will partner with HCET to continue the text messaging campaign aimed at adolescents to promote screening and positive sexual health behaviors.

4. MCH will partner with professional medical/health organizations to increase provider awareness of CDC guidelines related to screening and treatment of STIs among adolescents.

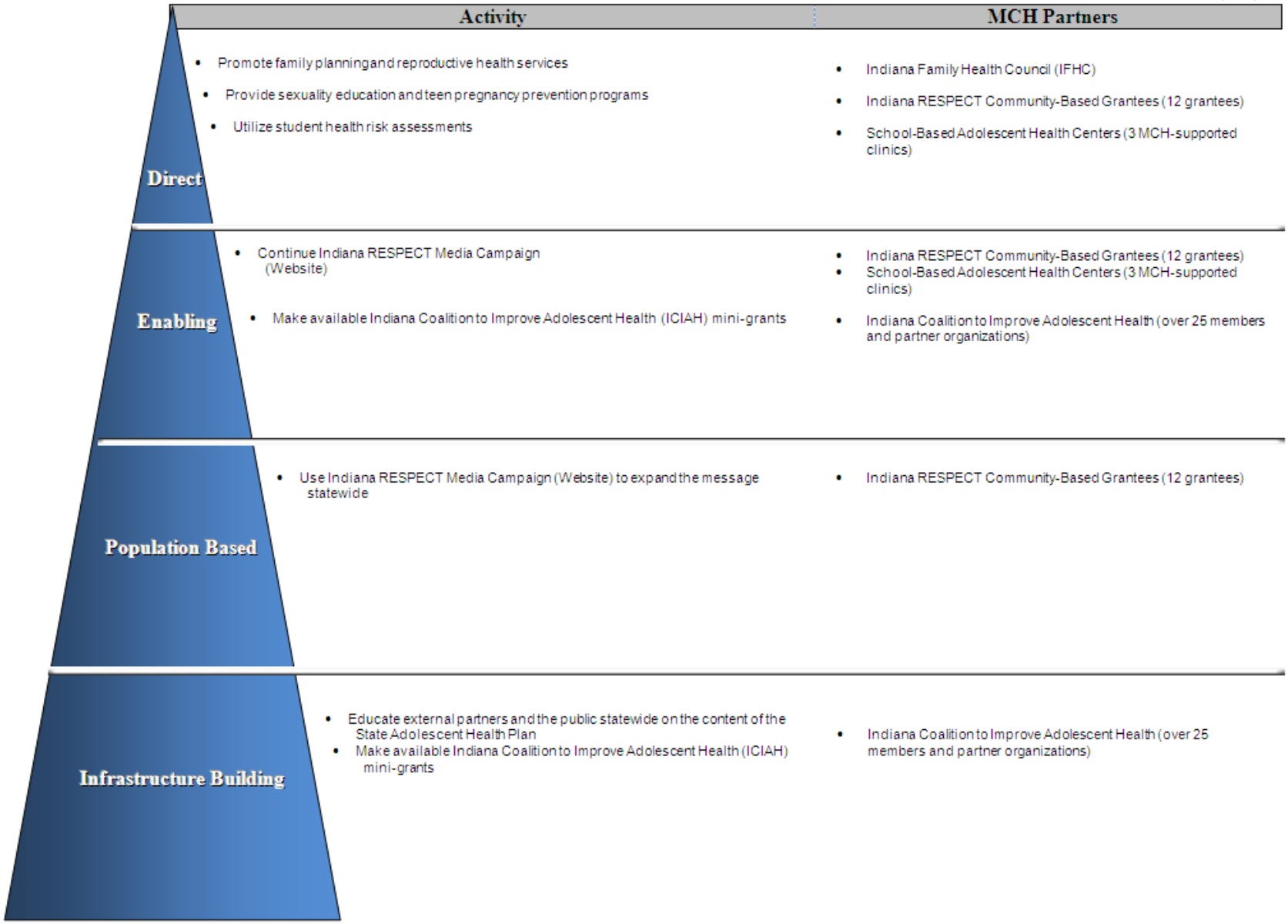
5. ICIAH will continue to add new resources on its Web site for parents, adolescents and professional regarding the prevention of STIs.

Tracking Performance Measures

Annual Objective and Performance Data	2006	2007	2008	2009	2010
Annual Performance Objective	N/A	N/A	CT: 13.6 GC: 4.0	CT: 15.1 GC: 4.1	CT: 13.3 GC: 4.0
Annual Indicator	N/A	N/A	N/A	N/A	
Numerator			CT: 2589 GC: 756	CT: 2698 GC: 731	
Denominator			CT: 19, 051 GC: 19, 054	CT: 17,846 GC: 17,7804	
Data Source			HCET RVIPP Data	HCET RVIPP Data	HCET RVIPP Data
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?					
	2011	2012	2013	2014	2015
Annual Performance Objective	CT: 13.1 GC: 3.8	CT: 12.9 GC: 3.5	CT: 12.6 GC: 3.2	CT: 12.3 GC: 2.9	CT: 12.0 GC: 2.5

Activities (Current-FY10)	**Pyramid Level of Service**			
	DHC	**ES**	**PBS**	**IB**
1. Partner with Indiana Family Health Council to promote screening for Chlamydia and gonorrhea.	x			
2. Partner with Health Care Education and Training to pilot a text messaging campaign aimed at reducing STIs and promoting screening.		x		
3. Conference about adolescent sexual health behaviors, including STIs				x
4. Provide educational materials and resources about STIs to parents, professionals and adolescents.		x		x

SPM # 9 PERCENTAGE OF HIGH SCHOOL STUDENTS WHO BECOME INFECTED WITH SEXUALLY TRANSMITTED INFECTIONS (STI)



FORM 16
STATE PERFORMANCE/OUTCOME MEASURE DETAIL SHEET

State Health Priority 10:	Build capacity for promoting social and emotional health in children from birth to age 5.
GOAL	Ensure that families of young children have access to trained providers to provide ongoing mental health services within their local communities
DEFINITION	Reduce percentage of high school students who become infected with sexually transmitted infections. **Numerator:** The number of counties where endorsed infant and early childhood mental health providers are available for families to receive community based ongoing services. **Denominator:** 92 (total Indiana counties) **Units: ___1__ Ratio** **(Number) (Text)**
HEALTHY PEOPLE 2010 OBJECTIVE	Objective 18-7: (Developmental) Increase the proportion of children with mental health problems who receive treatment.
DATA SOURCES AND DATA ISSUES	Upon implementation of the Michigan Association for Infant Mental Health (MI-AIMH) Endorsement process, the Indiana Association for Infant and Toddler Mental Health (IAITMH) will enroll and track providers who hold endorsement at each of four levels.
SIGNIFICANCE	Families report being turned away from Community Mental Health Centers because the centers have no staff trained to serve children under the age of 5 years. It is clear that our combined workforce capacity to serve these vulnerable children and families is severely limited.

State Health Priority 10: Increase capacity for promoting social-emotional health in children to age 5.

Performance Objective: (Developmental) Capacity for promoting social and emotional health in children from birth to age 5.

Overview: In recent years it has become increasingly clear that social and emotional skills underlie all other areas of development (Shonkoff & Phillips, 2000). In fact, early social and emotional competence is associated with continued competence and may help reduce the risks for later problem behaviors. Conversely, families are devastated when young children's early behavior problems persist, leading to disruption of family functioning, expulsion from child care and later problems in school and beyond. Prevention and promotion efforts are needed, and must be complemented by mental health services, when necessary. Infants and young children are extremely vulnerable when adults struggle with issues that may reduce their availability, such as mental illness, addiction, and domestic violence. Therefore, services addressing social emotional development in the early years must be family-centered: when adults receive needed support, child-adult relationships are enhanced and child outcomes are optimized.

Although it is well-recognized that services are needed, highly qualified mental health professionals with experience and training in infant and early childhood mental health services are not readily available in most parts of Indiana. At present, Indiana has two individuals with special training in infant mental health supervision and one with specialist provider training through an accrediting body. Currently, only 17 mental health professionals are enrolled in First Steps to provide services as psychologists and social workers; however, the majority of these providers are clustered in central Indiana so that vast majority of counties have no local providers available. The Indiana Association for Infant and Toddler Mental Health (IAITMH) has identified fewer than 10 private practitioners able to provide treatment to children under the age of 5 statewide. Families report being turned away from Community Mental Health Centers because the centers have no staff trained to serve children under the age of 5 years. It is clear that our combined workforce capacity to serve these vulnerable children and families is severely limited. This new State Performance Measure will work toward solving this important problem.

FY 10 Current Activities:

1. Specific IMH training at the Institute for Strengthening Families and support for the IAITMH Annual Conference

2. In-depth mentorship experiences in selected areas of the state to professionals providing infant mental health services

3. The development and dissemination of a module clarifying reimbursement for IMH services in Community Mental Health Center systems

4. Coordination with an expert consultant and Indiana University programs to propose a certificate in early childhood and infant mental health

6. Extensive discussion and planning related to adoption of the MI-AIMH Endorsement

FY 11 Planned Activities:

1. The MI-AIMH Endorsement, a set of competencies and a credentialing process in infant mental health, will be adopted in Indiana

2. Work will begin toward twenty five (25) providers; including Healthy Families workers, child care providers and Early Head Start home visitors to earn Level I endorsement

3. Twelve (12) Infant Toddler Specialists will begin their training to earn Level II endorsement

4. Annual conference and continuing education opportunities will be made available to early childhood providers

Tracking Performance Measure

Annual Objective and Performance Data	2011	2012	2013	2014	2015
Annual Performance Objective					
Annual Indicator					
Numerator	5	10	15	20	25
Denominator	92	92	92	92	92
Data Source: Indiana Council of Community Mental Health Centers					
Check this box if you cannot report the numerator because 1. There are fewer than 5 events over the last year, and 2. The average number of events over the last 3 years is fewer than 5 and therefore a 3-year moving average cannot be applied.					
Is the Data Provisional or Final?					
Annual Performance Objective	2011	2012	2013	2014	2015

Activities	**Pyramid Level of Service**			
	DHC	**ES**	**PBS**	**IB**
1. The MI-AIMH Endorsement will be adopted in Indiana				X
2. Twenty five providers; including Healthy Families workers, child care providers and Early Head Start home visitors will earn Level I endorsement				X
3. Thirty additional providers; including Healthy Families workers, child care providers and Early Head Start home visitors will earn Level I endorsement				X
4. Twelve Infant Toddler Specialists will earn Level II endorsement				X
5. Twenty five additional providers; including First Steps providers and DCS workers will receive a Level II endorsement				X
6. Ten providers who are currently members of the IAITMH Infant Mental Health Task Force will earn Level III endorsement.				X
7. Ten providers who are employed at Community Mental Health Centers will participate in an intensive infant and early childhood mental health training experience, resulting in eligibility for Level III endorsement children.				X
8. Five to ten additional providers will earn Level IV endorsement making them available to provide reflective supervision to providers seeking Level I-IV endorsements.				X
9. A university-based early childhood mental health certificate program will grow a pool of providers with education, training, and supervision required to meet criteria for Levels III and IV, resulting in increases in both direct services options for families and capacity for consultation and reflective supervision to other providers seeking Level I-IV endorsements				X
10. Annual Conference and Continuing Education Opportunities				X

SPM # 10 BUILD CAPACITY FOR PROMOTING SOCIAL AND EMOTIONAL HEALTH IN CHILDREN FROM BIRTH TO AGE 5